GA0003794 #1

Plant McManus (GA0003794) _ Final comments

Pamala Myers to: Dominic Weatherill 08/27/2010 11:09 AM

Cc: Karrie-Jo Shell, Alan Leake

Dominic,

EPA has reviewed the responses to our initial comments.

We have noted in our files that the Mercury data is now 8 years old (August 30, 2002).
Also that although "clean technique" sampling is reportedly used, the method was not identifed.

This comment is not intended to affect the issuance of this permit.

Please provide Region 4 with a copy of the final permit when it is issued.

We appreciate the opportunity to work with EPD in reviewing this permit.

Pamala Myers

Pamala Myers | Environmental Engineer and Technical Advisor
Pollution Control and Implementation Branch | Water Protection Division
Municipal and Industrial NPDES Section | U.S. EPA, Region 4 | Atlanta, GA 30303 |
Office 404.562.9421 | Fax 404.562.8692

"Dominic Weatherill" I wanted to confirm receipt of the attached e-... 07/28/2010 08:53:05 AM

From:	"Dominic Weatherill" <Dominic.Weatherill@dnr.state.ga.us>
To:	Pamala Myers/R4/USEPA/US@EPA
Date:	07/28/2010 08:53 AM
Subject:	Fwd: plant McManus for your review

I wanted to confirm receipt of the attached e-mail.

----- Message from "Dominic Weatherill" <Dominic.Weatherill@dnr.state.ga.us> on Thu, 22 Jul 2010 15:39:06 -0400 -----

To: <Myers.Pamala@epamail.epa.gov>

cc: "Alan Leake" <Alan.Leake@dnr.state.ga.us>

Subject: plant McManus for your review

Pamala,

I have attached the revised permit for your review and have addressed your comments below.

1) We cannot tell from the draft permit which outfalls the metal cleaning wastes will be monitored from. Can this be defined in a way that any effluent limitations guidelines applied to them are more

easily understood? Ms Shell has indicated to me, that this comment has been made before on other similar draft permits.

EPD: We have clarified this by moving Condition 3 from G. Special Requirements and created Condition A.3 on page 4 to show that outfall 02C is where the metal cleaning wastes are discharged and monitored.

2) The draft permit appears to omit some of the outfalls, can a description of the internal monitoring outfall points be included in the final permit for clarification of all outfalls included in the application?

EPD: Condition A.2 on page 3 was given a better description to show that it consists of both outfalls 02A & 02B.

3) We do not find where the permit addresses any requirement pertaining to the Federal 316(b) intake structure rule. Can you please revise the draft permit to indicate what the existing controls might be? Are they Best Technology Available (BTA)?
Or are there other controls in place not addressed here?

EPD: Condition G.13. on page 13 was added to address cooling water intake structures, 316(b). Also, see the rationale.

4) Because the site utilizes an Ash Pond Structure for waste ash storage, EPA would like to see details in the permit to address the structural integrity of the ash pond and please explain how those integrity determinations are made. An example of the requirements for inspections, reporting and compliance would be helpful.

EPD: Condition G.12. on page 13 was added to address impoundments used to hold or treat waste/wastewater. A statement is also included in the rationale.

5) Mercury TMDL

EPD: The facility previously conducted an analysis of the mercury content of the intake water & effluent of the facility and it was determined that they did not contribute to the mercury load in the Turtle River. This is mentioned in the rationale and a letter is attached with information on the testing.

If you have questions or concerns about our response to comments, please feel free to call me or set up a conference call.

Much appreciated.

Dominic.

Dominic Weatherill, Manager
Industrial Wastewater Unit
GA Environmental Protection Division
4220 International Parkway, Suite 101
Atlanta, Georgia 30354
Phone: (404) 675-6000
Fax: (404)362-2691
dominic_weatherill@dnr.state.ga.us

revised Rationale.pdf Mercury ltr.pdf GaPower revised draft.pdf Alan Leake8.vcf

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MSC

#2

Environmental Affairs
Bin 10221
241 Ralph McGill Boulevard NE
Atlanta, Georgia 30308-3374

Tel 404.506.6526

October 22, 2003

OCT 24 2003

GEORGIA POWER
A SOUTHERN COMPANY

Mr. Jeffery H. Larson
Manager, Permitting, Compliance and Enforcement Program
Georgia Environmental Protection Division
4220 International Parkway – Suite 101
Atlanta, Georgia 30354

Dear Mr. Larson:

Re: Plant McManus
NPDES Permit No. GA0003794
Mercury TMDL sampling

Dear Mr. Larson:

As requested in your letter of August 30, 2002 to Mr. Chris Hobson, Georgia Power Company has monitored mercury in the source water and effluents at Plant McManus as specified in the TMDL for Total Mercury in the Satilla Watershed dated February 28, 2002. On September 17, 2003, clean technique sampling was conducted of the intake water, Outfall 01 - Once Through Condenser Cooling Water and Outfall 02 - Ash Transport Water and Low Volume Waste Discharge. Sampling and analyses were conducted by Skidaway Institute of Oceanography, which is one of the laboratories included in the list provided by EPD. Since Skidaway is not accredited as currently required by EPD for NPDES monitoring, we also had splits of these samples analyzed by Frontier Geosciences Inc., which is accredited and is also on EPD's list. These analyses yielded the following results:

Skidaway Institute of Oceanography

Sample	Total Hg, ng/l
Intake source water	4.3
Intake source water duplicate	4.4
01 - Once Through Condenser Cooling Water	3.9
01 - Once Through Condenser Cooling Water duplicate	3.4
02 - Ash Transport Water and Low Volume Waste	<0.2
02 - Ash Transport Water and Low Volume Waste duplicate	<0.2

Frontier Geosciences Inc.

Sample	Total Hg, ng/l
Intake source water	7.84
Intake source water duplicate	8.07
01 - Once Through Condenser Cooling Water	14.7
01 - Once Through Condenser Cooling Water duplicate	15.7
02 - Ash Transport Water and Low Volume Waste	1.75
02 - Ash Transport Water and Low Volume Waste duplicate	1.70

Frontier Geosciences Inc. provided the following accreditation stipulation:
Accreditor: NY/NELAP
Scope: CWA
Accreditation #: 11662
Effective: April 8, 2003
Expires: April 1, 2004

While Georgia Power Company collected this data and information in accordance with applicable standards and analytical practices, such information is always subject to the inherent variabilities and inaccuracies associated with sampling and measurement. Such variabilities and inaccuracies are not within the reasonable control of the permittee. Given the possible varying interpretations of this information, the data should not be interpreted as an admission by the permittee of any exceedances of applicable requirements. Further, for these reasons, among others, Georgia Power reserves the right to claim all legal and equitable defenses available to it.

Georgia Power contends that the inconsistency of these results reveals analytical variabilities and does not justify the need for further mercury characterization or minimization studies for Plant McManus. At these low levels, there is an increased potential of contamination of split samples occurring during handling and analysis by two separate laboratories. Outfall 01, the Once Through Condenser Cooling Water, is non-contact cooling water in which there is no known potential for contribution of additional mercury to the flow. From their sampling of this outfall during their development of this TMDL in 2000, EPA concluded that the total mercury effluent level of 9.45 ng/l was consistent with other source water sample results and that Plant McManus was not contributing to the mercury loading of the receiving water. Outfall 02, the Ash Transport Water and Low Volume Waste, which does have the potential to include waste streams from plant processes, consistently shows lower mercury levels than the TMDL water quality target of 2.5 ng/l. Therefore, it would be inappropriate to conclude that Plant McManus is a potential contributor to the mercury loading of the Turtle River.

If you have any questions or require additional information, please contact Bill Evans at 404-506-7031.

Sincerely,

M. E. Wilder

M. E. Wilder
Land and Water Programs Manager

PERMIT NO. GA0003794

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), hereinafter called the State Act; the Federal Water Pollution Control Act, as amended (33 U.S. C. 1251 et seq.), hereinafter called the Federal Act; and the Rules and Regulations promulgated pursuant to each of these Acts,

Georgia Power Company
Bin 10221
241 Ralph McGill Blvd. N.E.
Atlanta, Georgia 30308-3374

is authorized to discharge from a facility located at

Plant McManus, Glynn County, Georgia

to receiving waters

Turtle River, Gibson Creek and Burnette Creek

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II and III hereof.

This permit shall become effective on _.

This permit and the authorization to discharge shall expire at midnight, July 31, 2015.

Not a good idea to put date here

Signed this th day of , 2010.

Director,
Environmental Protection Division

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through July 31, 2015, the permittee is authorized to discharge from outfall(s) **serial number(s) 01 – Once Through Condenser Cooling Water.**

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	(mg/l)				Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Inst. Max.			
Flow (MGD)	------	------	-------	----------	Continuous	*1	Circulating Pumps
Temperature (°F) *3	------	------	N/A	90 or 1.5 above intake temp. *2	1/Week	In Situ	*2
Total Residual Oxidants (TRO)	------	------	------- --	*6	*7	Multiple Grabs *5	*4

There shall be no discharge of floating solids or visible foam in other than trace amounts.

*1 Determined from pump logs.

*2 The discharge temperature is the average of the temperature at three feet below the surface of Gibson Creek and the temperature at one foot above the bottom of Gibson Creek, both readings to be taken at the confluence of Gibson Creek and Yellow Bluff Creek at the limits of the defined mixing zone. Temperature will also be monitored at plant intake.

*3 Temperature measurements will be confined to the hours of 9:00 a.m. to 6:00 p.m. The time of measurement and tide stage will also be recorded for each sample. Temperature will only be measured when facility is operating.

*4 End of discharge tunnel prior to mixing with other waters.

*5 Multiple grab samples are to be collected on 15-minute intervals during periods of TRO discharges attributable to cooling water chlorination.

*6 Instantaneous measured TRO of any one grab sample shall not exceed 0.2 mg/l. TRO time shall not exceed 120 minutes per day.

*7 TRO shall be measured once per week during unit operation and once per month during off-line periods.

2. During the period beginning on the effective date and lasting through July 31, 2015, the permittee is authorized to discharge from outfall(s) **serial number(s) 02 – Ash Transport Water and Low Volume Waste Discharge** (combined discharges from outfalls 02A – Low Volume Waste and 02B – Ash Transport Water).

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	**Discharge Limitations**				**Monitoring Requirements**		
	Mass Based		Conc. Based (mg/l)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	-------	-------			2/month	Instantaneous	Effluent *
Total Suspended Solids (TSS)	-------	-------	30	100	2/month	Grab	Effluent *
Oil and Grease	-------	-------	15	20	2/month	Grab	Effluent *

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored twice per month by grab sample of effluent* while pond is overflowing.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

*Effluent is the ash pond overflow. Sample shall be collected while basin is overflowing. If there is no flow, this shall be stated on the Operation Monitoring Report.

3. During the period beginning on the effective date and lasting through July 31, 2015, the permittee is authorized to discharge from outfall(s) **serial number(s) 02C – Chemical Cleaning Discharge.**

The quantity of pollutants discharged in metal cleaning waste shall not exceed the quantity determined by multiplying the flow of metal cleaning wastes times the concentrations listed below. All effluent characteristics shall be monitored 1/week by grab sampling when a discharge is occurring.

Effluent Characteristics	**Discharge Limitations (mg/l)**	
	Daily Average	**Daily Maximum**
TSS	30	100
Oil & Grease	15	20
Copper	1.0	1.0
Iron	1.0	1.0

4. During the period beginning on the effective date and lasting through July 31, 2015, the permittee is authorized to discharge from outfall(s) **serial number(s) 03 – Intake Screen Backwash.**

Such discharges shall be limited and monitored by the permittee as specified below:

The discharge shall consist only of intake screen backwash. If the Director determines that water quality standards are not being met as the result of this discharge and so notifies the permittee in writing, the permittee shall take all reasonable steps to minimize any adverse impact to wasters of the State.

5. During the period beginning on the effective date and lasting through July 31, 2015, the permittee is authorized to discharge from outfall(s) **serial number(s) 04 – Coldwell Overflow/Stormwater.**

Such discharges shall be limited and monitored by the permittee as specified below:

The discharge shall consist only of coldwell overflow and stormwater. If the Director determines that water quality standards are not being met as the result of this discharge and so notifies the permittee in writing, the permittee shall take all reasonable steps to minimize any adverse impact to wasters of the State.

B. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

N/A

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

   Note: EPD as used herein means the Environmental Protection Division of the Department of Natural Resources.

C. MONITORING AND REPORTING

1. Representative Sampling

   Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Reporting

   Monitoring results obtained during the previous three months shall be summarized for each month and reported on an Operation Monitoring Report (Form WQ 1.45). Forms other than Form WQ 1.45 may be used upon approval by EPD. These forms and any other required reports and information shall be completed, signed and certified by a principal executive officer or ranking elected official, or by a duly authorized representative of that person, and submitted to the Division, postmarked no later than the 21st day of the month following the reporting period. Signed copies of these and all other reports required herein shall be submitted to the following address:

   Georgia Environmental Protection Division
   Coastal District Office
   400 Commerce Center Drive
   Brunswick, Georgia 31523

   All instances of noncompliance not reported under Part I. B., C. and D. shall be reported at the time the operation monitoring report is submitted.

3. Definitions

   a. The "daily average" mass means the total discharge by mass during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days sampled during the calendar month when the measurements were made.

   b. The "daily maximum" mass means the total discharge by mass during any calendar day.

c. The "daily average" concentration means the arithmetic average of all the daily determinations of concentrations made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample.

d. The "daily maximum" concentration means the daily determination of concentration for any calendar day.

e. A calendar day is defined as any consecutive 24-hour period.

f. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

g. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources, which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

4. Test Procedures

Monitoring must be conducted according to test procedures approved pursuant to 40 CFR Part 136 unless other test procedures have been specified in this permit.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The exact place, date, and time of sampling or measurements, and the person(s) performing the sampling or the measurements;

b. The dates the analyses were performed, and the person(s) who performed the analyses;

c. The analytical techniques or methods used; and

d. The results of all required analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Operation Monitoring Report Form (WQ 1.45). Such increased monitoring frequency shall also be indicated. The Division may require by written notification more frequent monitoring of other pollutants not required in this permit.

7. Records Retention

The permittee shall retain records of all monitoring information, including all records of analyses performed, calibration and maintenance of instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this

permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Division at any time.

8. Penalties

The Federal Clean Water Act and the Georgia Water Quality Control Act provide that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine or by imprisonment, or by both. The Federal Clean Water Act and the Georgia Water Quality Control Act also provide procedures for imposing civil penalties which may be levied for violations of the Act, any permit condition or limitation established pursuant to the Act, or negligently or intentionally failing or refusing to comply with any final or emergency order of the Director of the Division.

D. MANAGEMENT REQUIREMENTS

1. Change in Discharge

a. Advance notice to the Division shall be given of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements. Any anticipated facility expansions, production increases, or process modifications must be reported by submission of a new NPDES permit application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the Division of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

b. All existing manufacturing, commercial, mining, and silviculture dischargers shall notify the Division as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (I) 100 μg/l, (ii) five times the maximum concentration reported for that pollutant in the permit application, or (iii) 200 μg/l for acrolein and acrylonitrile, 500 μg/l for 2,4 dinitrophenol and for 2-methyl-4-6-dinitrophenol, or 1 mg/l antimony.

c. All existing manufacturing, commercial, mining, and silvicultural dischargers shall notify the Division as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in any discharge on a nonroutine or infrequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (I) 500 μg/l, (ii) ten times the maximum concentration reported for that pollutant in the permit application, or (iii) 1 mg/l antimony.

2. Noncompliance Notification

If, for any reason, the permittee does not comply with, or will be unable to comply with any effluent limitation specified in this permit, the permittee shall provide the Division with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

a. A description of the discharge and cause of noncompliance; and

b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

3. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypassing

a. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Division at least 10 days (if possible) before the date of the bypass. The permittee shall submit notice of any unanticipated bypass with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

1. A description of the discharge and cause of noncompliance; and

2. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

b. Any diversion or bypass of facilities covered by this permit is prohibited, except (I) where unavoidable to prevent loss of life, personal injury, or severe property damage; (ii) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if the permittee could have installed adequate back-up equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and (iii) the permittee submitted a notice as required above. The permittee shall operate the treatment works, including the treatment plant and total sewer system, to minimize discharge of the pollutants listed in Part I of this permit from combined sewer overflows or bypasses. Upon written notification by the Division, the permittee may be required to submit a plan and schedule for reducing bypasses, overflows, and infiltration in the system.

6. Sludge Disposal Requirements

Hazardous sludge shall be disposed of in accordance with the regulations and guidelines established by the Division pursuant to the Federal Clean Water Act (CWA) and the Resource Conservation and Recovery Act (RCRA). For land application of nonhazardous sludge, the permittee shall comply with any applicable criteria outlined in the Division's "Guidelines for Land Application of Municipal Sludges." Prior to disposal of sludge by land application, the permittee shall submit a proposal to the Division for approval in accordance with applicable criteria in the Division's "Guidelines for Land Application of Municipal Sludges." Upon evaluation of the permittee's proposal, the Division may require that more stringent control of this activity is required. Upon written notification, the permittee shall submit to the Division for approval, a detailed plan of operation for land application of sludge. Upon approval, the plan will become a part of the NPDES permit. Disposal of non-hazardous sludge by other means, such as landfilling, must be approved by the Division.

7. Sludge Monitoring Requirements

The permittee shall develop and implement procedures to insure adequate year-round sludge disposal. The permittee shall monitor the volume and concentration of solids removed from the plant. Records shall be maintained which document the quantity of solids removed from the plant. The ultimate disposal of solids shall be reported monthly (in the unit of lbs/day) to the Division with the Operation Monitoring Report Forms required under Part I C. 2. of this permit.

8. Power Failures

Upon the reduction, loss, or failure of the primary source of power to said water pollution control facilities, the permittee shall use an alternative source of power if available to reduce or otherwise control production and/or all discharges in order to maintain compliance with the effluent limitations and prohibitions of this permit.

If such alternative power source is not in existence, and no date for its implementation appears in Part I, the permittee shall halt, reduce or otherwise control production and/or all discharges from wastewater control facilities upon the reduction, loss, or failure of the primary source of power to said wastewater control facilities.

E. RESPONSIBILITIES

1. Right of Entry

The permittee shall allow the Director of the Division, the Regional Administrator of EPA, and/or their authorized representatives, agents, or employees, upon the presentation of credentials:

a. To enter upon the permittee's premises where a regulated activity or facility is located or conducted or where any records are required to be kept under the terms and conditions of this permit; and

b. At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and to sample any substance or parameters in any location.

2. Transfer of Ownership or Control

A permit may be transferred to another person by a permittee if:

a. The permittee notifies the Director in writing of the proposed transfer at least thirty (30) days in advance of the proposed transfer;

b. A written agreement containing a specific date for transfer of permit responsibility and coverage between the current and new permittee (including acknowledgement that the existing permittee is liable for violations up to that date, and that the new permittee is liable for violations from that date on) is submitted to the Director at least thirty (30) days in advance of the proposed transfer; and

c. The Director, within thirty (30) days, does not notify the current permittee and the new permittee of the Division's intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

3. Availability of Reports

Except for data deemed to be confidential under O.C.G.A. 12-5-26 or by the Regional Administrator of the EPA under the Code of Federal Regulations, Title 40, Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at an office of the Division. Effluent data, permit applications, permittee's names and addresses, and permits shall not be considered confidential.

4. Permit Modification

After written notice and opportunity for a hearing, this permit may be modified, suspended, revoked or reissued in whole or in part during its term for cause including, but not limited to, the following:

a. Violation of any conditions of this permit;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge; or

d. To comply with any applicable effluent limitation issued pursuant to the order the United States District Court for the District of Columbia issued on June 8, 1976, in Natural Resources Defense Council, Inc. et.al. v. Russell E. Train, 8 ERC 2120(D.D.C. 1976), if the effluent limitation so issued:

(1) is different in conditions or more stringent than any effluent limitation in the permit; or

(2) controls any pollutant not limited in the permit.

5. Toxic Pollutants

The permittee shall comply with effluent standards or prohibitions established pursuant to Section 307(a) and Section 301(b)2 of the Federal Clean Water Act for toxic pollutants, which are present in the discharge within the time provided in the regulations that establish these

standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

6. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

7. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Federal Clean Water Act.

8. Water Quality Standards

Nothing in this permit shall be construed to preclude the modification of any condition of this permit when it is determined that the effluent limitations specified herein fail to achieve the applicable State water quality standards.

9. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Expiration of Permit

Permittee shall not discharge after the expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information, forms, and fees as are required by the agency authorized to issue permits no later than 180 days prior to the expiration date.

11. Contested Hearings

Any person who is aggrieved or adversely affected by an action of the Director of the Division shall petition the Director for a hearing within thirty (30) days of notice of such action.

12. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

13. Best Management Practices

The permittee will implement best management practices to control the discharge of hazardous and/or toxic materials from ancillary manufacturing activities. Such activities include, but are not limited to, materials storage areas, in-plant transfer, process and material handling areas; loading and unloading operations; plant site runoff; and sludge and waste disposal areas.

14. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

15. Duty to Provide Information

a. The permittee shall furnish to the Director of the Division, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish upon request copies of records required to be kept by this permit.

b. When the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or any report to the Director, it shall promptly submit such facts and information.

16. Stormwater Runoff

In addition to the outfalls identified in Part I, Section A. of this permit, the permittee is authorized to discharge stormwater runoff from point sources at this facility provided that these discharges do not cause violations of State water quality standards in the receiving streams.

17. Upset Provisions

Provisions of 40 CFR 122.41(n)(1)-(4), regarding "Upset" shall be applicable to any civil, criminal, or administrative proceeding brought to enforce this permit.

F. PREVIOUS PERMITS

1. All previous State water quality permits issued to this facility, whether for construction or operation, are hereby revoked by the issuance of this permit. This action is taken to assure compliance with the Georgia Water Quality Control Act, as amended, and the Federal Clean Water Act, as amended. Receipt of the permit constitutes notice of such action. The conditions, requirements, terms and provisions of this permit authorizing discharge under the National Pollutant Discharge Elimination System govern discharges from this facility.

G. SPECIAL REQUIREMENTS

1. There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

2. Any metal cleaning wastes generated will be contained for further treatment or disposal in a manner to permit compliance at time of discharge with requirements listed in A.3. or disposed in a manner approved by the Division. This applies to any preoperational chemical cleaning of metal process equipment also. The treatment and disposal procedures shall be discussed in the flow monitoring and characterization submittal.

3. The permittee will develop a system for monitoring and recording total time of TRO discharges. The results shall be reported in a suitably concise form beginning with the first scheduled Operation Monitoring Report (OMR) and continuing on each OMR thereafter.

4. In the event that waste streams for various sources are combined for treatment of discharge, the quantity of each pollutant or pollutant property controlled by this permit shall not exceed the specified limitations for that source.

5. The Director may modify any effluent limitations upon request of the permittee if such limitation is covered by an approved variance or by an amendment to the Federal Clean Water Act. Monitoring under Part I.A.1. shall be applicable only during periods of operation of the facility or during periods of effluent discharge.

6. The effluent limits for all metals in this permit shall be defined and reported in terms of total recoverable metal in conformance with the appropriate language of the applicable Federal regulations.

7. Upon approval of the Director, the permittee shall, on a case-by-case basis, be able to utilize alternative analytical methods, conversion factors, methodology, procedures, or new technologies, to ensure that the bio-monitoring and toxicity reduction requirements of Part I. H. and the testing/reporting requirements of the permit are adequately addressed.

8. The provisions of 40 CFR 122.41(l)(6)(iii) regarding waiver of the 5 day written report required by Part I D.2. and D.5. of this permit shall be applicable and may be implemented on a case-by-case basis by EPD for non-compliances which are orally reported by the permittee within 24 hours of discovery of the noncompliance condition.

9. The Division recognizes the inherent analytical variability in approved test methods and procedures and further agrees that such issues can be raised by the permittee as a defense in an enforcement action.

10. If the results for a given sample are such that a parameter is not detected at or above the method detection limit or reporting limit, a value of zero will be reported for that sample and the method detection limit or reporting limit will also be reported. Such sample shall be deemed to be in compliance with the permit limit.

11. The permittee is authorized to discharge stormwater from the outfalls identified in Part I. A. of this permit provided that these discharges do not cause violations of State water quality standards in the receiving streams.

12. All impoundments used to hold or treat wastewater and other associated wastes shall be designed, constructed, operated, and maintained to prevent the discharge of pollutants to waters of the state, except as authorized by this permit. All impoundments shall be inspected, at a minimum, on a monthly basis by qualified personnel with knowledge and training of impoundment integrity. Training of site inspectors shall be conducted, at a minimum, on a yearly basis. This instruction shall be conducted by a qualified engineer or geologist under Southern Company's Dam Safety Program. The training shall be equivalent to the MSHA curriculum. The impoundment shall be inspected annually by a qualified dam safety engineer and a report of this inspection will be produced. Records of inspections shall be kept on site at the subject facility and available to State or Federal inspectors upon request.

13. Requirements Applicable to Cooling Water Intake Structures

This permit may be reopened to address compliance with 316(b) requirements upon issuance of a new rule or final guidance by EPA.

H. BIOMONITORING AND TOXICITY REDUCTION REQUIREMENTS

In order to determine whether the permittee is discharging wastes in concentrations or combinations which may have an adverse impact on the States water quality, the division can require the permittee to conduct a bio-monitoring program.
If toxicity is suspected in the effluent, the EPD may require the permittee to perform any of the following actions:

1. Within 90 days of Division notification a screening program study plan detailing the test methodology and test organisms shall be submitted for conducting a forty-eight hour static acute test of the final effluent.

   Note: If residual chlorine is present in the final effluent from a treatment and/or disinfection process, a prechlorinated or dechlorinated sample will be tested.

2. Within 90 days of Division approval of the study plan, the permittee shall conduct and submit the results of the forty-eight hour static acute test.

The Division will then review the results of the forty-eight hour static acute test. If the test criteria specified in the study plan are exceeded, then the permittee shall within 90 days of written notification by the Division repeat steps 1. and 2. above replacing the forty-eight hour static acute test with the ninety-six hour test.

The Division will then review the results of the ninety-six hour test. If the criteria* detailed in the ninety-six hour test indicates toxicity, then the permittee shall within 90 days of written notification by the division submit to the Division a plan to reduce the toxicity of the effluent. Within 270 days of Division approval of this plan, the permittee shall implement the plan and initiate follow-up bio-monitoring of the effluent in accordance with the approved toxicity reduction plan. The toxicity reduction plan shall not be complete until the permittee meets the criteria detailed in the ninety-six hour test plan.

If there are substantial composition changes in the permittees effluent, the permittee may be required to repeat the forty-eight hour static acute test upon notification by the Division. Unless otherwise advised, the permittee shall perform bio-monitoring of the effluent as provided in H. 1. and 2. above, at a minimum of once every three years upon notification by the Division. On a case specific basis, chronic toxicity testing procedures may be required. Upon approval by the Division, all of the plans will become part of the requirements of this permit.

* The 96 hour criteria shall define toxicity as a greater than 10% mortality of the exposed test organisms in 96 hours or less when the test solution contains volumes of effluent and dilution water proportional to the plant daily average flow and the 7Q10 flow of the receiving stream, as determined using test procedures and methods, and statistical methods for evaluating test results, developed by the permittee and approved by the Division pursuant to this section, or revised pursuant to Part I.G.7. above.

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#3

Charles H. (Chuck) Huling, P.E.
Vice President
Environmental Affairs

241 Ralph McGill Boulevard NE
Atlanta, Georgia 30308-3374

Tel 404.506.7716
Fax 404.506.7066
chhuling@southernco.com

GEORGIA POWER
A SOUTHERN COMPANY

February 18, 2010

Certified Mail

RECEIVED
FEB 22 2010
Environmental Protection Division

Mr. F. Allen Barnes
Director
Environmental Protection Division
Suite 1152 East
205 Butler Street, S.E.
Atlanta, Georgia 30334

RE: Plant McManus
NPDES Permit No. GA0003794
Application for Permit Renewal

MAR 4 2010

Dear Mr. Barnes:

Attached is the NPDES permit renewal application package for the Georgia Power Company Plant McManus facility located in Brunswick, Georgia. In addition to the required EPA Forms 1 and 2C, the application package includes the following supporting documentation:

1. Line drawing showing the water flow through the facility

2. A site aerial photo showing the locations of process wastewater discharges and commingled storm water discharges.

3. An 8 1/2" x 11" segment of the USGS 7.5 minute topographic map showing the facility location.

4. Information pursuant to 40 CFR 122.21(r)(2), (3) and (5), which address compliance with Clean Water Act Section 316(b) regarding cooling water intake structures.

As discussed with Mr. Weatherill and Mr. Leake of EPD's Industrial Wastewater Unit, we are providing Form 2C for only Outfall 02, the Ash Transport and Low Volume Waste. With respect to Outfall 01, the Once-Through Condenser Cooling Water, the two Form 2Cs submitted since the last permit was issued adequately characterize that the discharge is non-contact cooling water and reflects the same water quality as the intake source water.

The Ash Pond Co-treatment Evaluation submitted with the previous application, dated September 12, 2005, remains applicable as no additional ash has been disposed in the Ash Pond and the volume is unchanged. The evaluation demonstrates that the Plant McManus ash treatment systems have adequate storage volume to meet EPA's co-treatment guidelines through the next permit term.

There have been no changes or modifications to this permit since its issue on August 28, 2002. We request that EPD consider renewing this permit with the same effluent limitations and conditions that are currently applicable in the existing NPDES permit.

If you need additional information or have questions regarding this matter, please contact Angela Haun at 404-506-3348.

Sincerely,

Charles H. Huling

Attachments

xc: Dominic Weatherill, EPD Industrial Wastewater Unit, with attachments

(fill-in areas are spaced for elite type, i.e, 12 characters/inch).

Form Approved. OMB No. 2040-0086. Approval expires 5-31-92

FORM 1 GENERAL

U. S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

1	2												13	14	15
F	G	A	D	0	0	0	6	1	2	5	7	2		T/A	C D

LABEL ITEMS

- I. EPA I.D. NUMBER
- III. FACILITY NAME
- V. FACILITY MAILING ADDRESS
- VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

MAR 4 2010

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data is absent (the area to the left of the label space list the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold-faced terms.**

SPECIFIC QUESTIONS	MARK "X" YES	NO	FORM ATTACHED	SPECIFIC QUESTIONS	MARK "X" YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)	16	X 17	18	B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.**? (FORM 2B)	19	X 20	21
C. Is this a facility which currently results in **discharges** to waters of the U.S. other than those described in A or B above? (FORM 2C)	X 22	23	X 24	D. Is this a proposed facility (other than those described in A or B above) which will result in a **discharge** to waters of the U.S.? (FORM 2D)	25	X 26	27
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)	28	X 29	30	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)	31	X 32	33
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)	34	X 35	36	H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)	37	X 38	39
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)	40	X 41	42	J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)	43	X 44	45

III. NAME OF FACILITY

C 1 SKIP Plant McManus (15–16, 29–30, 69)

IV. FACILITY CONTACT

A. NAME & TITLE (*last, first, & title*)	B. PHONE (*area code & no.*)
C 2 Huling, Charles. H., Vice Pres., Environ. Affairs (15–16, 45)	404 (46–48) 506 (49–51) 7716 (52–55)

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX	B. CITY OR TOWN	C. STATE	D. ZIP CODE
C 3 241 Ralph McGill Blvd., N.E. (15–16, 45)	C 4 Atlanta (15–16, 40)	GA (41–42)	30308 (47–51)

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER	B. COUNTY NAME
C 5 One Crispin Island (15–16, 45)	Glynn (46, 70)

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE
C 6 Brunswick (15–16, 40)	GA (41–42)	31523 (47–51)	N/A (52–54)

CONTINUE ON REVERSE

VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST		B. SECOND	
C 7	4911	C 7	
(specify)	Generation of electricity	*(specify)*	N/A
C. THIRD		**D. FOURTH**	
C 7		C 7	
(specify)	N/A	*(specify)*	N/A

VIII. OPERATOR INFORMATION

A. NAME: C 8 Georgia Power Company

B. Is the name listed in Item VIII-A also the owner? ☒ YES ☐ NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box; if "Other", specify.)*
F = FEDERAL, M = PUBLIC *(other than federal or state)*, S = STATE, O = OTHER *(specify)*, P = PRIVATE: P *(specify)*

D. PHONE *(area code & no.)*: C A 404 506 6526

E. STREET OR P.O. BOX: 241 Ralph McGill Blvd., N.E.

F. CITY OR TOWN	G. STATE	H. ZIP CODE	IX. INDIAN LAND
C B Atlanta	GA	30308	Is the facility located on Indian lands? ☐ YES ☒ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*	C 9 T N I	GA0003794	
D. PSD *(Air Emissions from Proposed Sources)*	C 9 T P I	N/A	
B. UIC *(Underground Injection of Fluids)*	C 9 T U I	N/A	
E. OTHER *(specify)*	C 9 T I	N/A	*(specify)*
C. RCRA *(Hazardous Wastes)*	C 9 T R I	N/A	
E. OTHER *(specify)*	C 9 T I	N/A	*(specify)*

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a brief description)*

Generation of electricity through combustion of fossil fuels.

XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of thos persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
Charles H. Huling, V. P., Envir. Affairs	Charles H. Huling	2/18/10

COMMENTS FOR OFFICIAL USE ONLY

C C

Please print or type in the unshaded areas only.

EPA I.D. (*copy from Item 1 of Form 1*)
GAD000612572

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

FORM 2C NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NO. (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
01, 03	31	12	44	-81	32	47	Gibson Creek
02	31	13	10	-81	32	45	Burnett Creek
04	31	12	54	-81	33	02	Turtle River

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities) provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (*list*)	2. OPERATION (S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
01	Once Through Condenser Cooling Water	32,200 GPM **	107,350 GPM Maximum	4A	2F
02	Ash Transport Water Final Discharge - Stormwater	*		4A	
02A	Low Volume Wastes		* 1,600 GPM	4A	
02B	Ash Transport Water		* 2,000 GPM	4A	
02C	Chemical Cleaning Discharges	*			
03	Intake Screen Backwash		* 1,200 GPM	4A	
04	Coldwell Overflow - Stormwater	*			
	* Intermittent Discharge Depending on Plant Operating Schedule				
	** Derived from Surface Water Withdrawal Reports				

OFFICIAL USE ONLY (effluent guidelines sub-categories)

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items 11-A or B intermittent or seasonal?

☒ YES (complete the following table) ☐ NO (go to Section III)

1. OUTFALL NUMBER (list)	2. OPERATION(s) CONTRIBUTING FLOW (list)	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK (specify average)	b. MONTHS PER YEAR (specify average)	a. FLOW RATE (in mgd)		b. TOTAL VOLUME (specify with units)		c. DURATION (in days)
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	
02,02A,02B, 02C, and 03,	Flow depends on plant operation - Plant McManus is not presently in continuous operation							
04	Coldwell overflows should consist of condensate or demineralized water. Events are infrequent and of short duration.							

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ YES (complete Item III-B) ☐ NO (go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?

☐ YES (complete Item III-C) ☒ NO (go to Section IV)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS (list outfall numbers)
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	

IV. IMPROVEMENTS

A. Are you now required by any Federal, state or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (complete the following table) ☒ NO (go to Item IV-B)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	B. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAM IS ATTACHED

 CONTINUE ON PAGE 3

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*

GAD000612572

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C. See instructions before proceeding - Complete one set of tables for each outfall - Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Vanadium	Present in fuel		

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (list all such pollutants below) ☒ NO (go to Item VI-B)

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (identify the test(s) and describe their purposes below) ☒ NO (go to Section VIII)

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☒ YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below) ☐ NO (go to Section IX)

A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (list)
Analytical Services Inc. Accreditor: FL/NELAC Scope: CWA, SDWA, RCRA Accreditation #: E87315 Effective: July 1, 2009 Expires: June 30, 2010	110 Technology Parkway Norcross, GA 30092	770-734-4200	All except pH, temperature, and Total Residual Chlorine

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designated to assure that qualified personal properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (type or print)	B. PHONE NO. (Area code & no.)
Charles. H. Huling , Vice President, Environmental Affairs	404-506-7716
C. SIGNATURE Charles H. Huling	D. DATE SIGNED 2/18/10

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
GAD000612572 (McManus)

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

Plant McManus

OUTFALL NO.
Ash Pond (Grab)

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCEN-TRATION	b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	6.0						1	mg/l	lb/day			
b. Chemical Oxygen Demand (COD)	163						1	mg/l	lb/day			
c. Total Organic Carbon (TOC)	16.6						1	mg/l	lb/day			
d. Total Suspended Solids (TSS)	40						1	mg/l	lb/day			
e. Ammonia *(as N)*	0.2						1	mg/l	lb/day			
f. Flow	VALUE n/a		VALUE		VALUE		1	gpm		VALUE		
g. Temperature *(winter)*	VALUE 6.1		VALUE		VALUE		1	°C		VALUE		
h. Temperature *(summer)*	VALUE		VALUE		VALUE		0	°C		VALUE		
i. pH	MINIMUM 8.72	MAXIMUM n/a	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data for an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO. OF ANAL-YESES	4. UNITS a. CONCEN-TRATION	b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANAL-YSES
a. Bromide (24959-67-9)	X		8.6						1	mg/l	lb/day			
b. Chlorine, Total Residual		X	0						1	mg/l				
c. Color	X		100						1	PCU				
d. Fecal Coliform	X		220						1	col/100 ml				
e. Fluoride (16984-48-8)	X		0.16						1	mg/l	lb/day			
f. Nitrate-Nitrite *(as N)*		X	< 0.01						1	mg/l	lb/day			

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic *(as N)*	X		1.9						1	mg/l	lb/day			
h. Oil and Grease		X	< 5.7						1	mg/l	lb/day			
I. Phosphorus (as P) Total (7723-14-0)	X		0.23						1	mg/l	lb/day			
J. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate *(as SO_4)* (14808-79-8)	X		320						1	mg/l	lb/day			
l. Sulfide *(as SO_3)* (14265-45-3)		X	< 0.2						1	mg/l	lb/day			
m. Sulfite *(as SO_3)* (14265-45-3)		X	< 2.0						1	mg/l	lb/day			
n. Surfactants		X	< 0.5						1	mg/l	lb/day			
o. Aluminum, Total (7440-39-3)	X		0.21						1	mg/l	lb/day			
p. Barium, Total (7440-39-3)	X		0.15						1	mg/l	lb/day			
q. Boron, Total (7440-42-8)	X		0.59						1	mg/l	lb/day			
r. Cobalt, Total (7440-48-4)		X	< 0.005						1	mg/l	lb/day			
s. Iron, Total (7439-89-6)	X		2.0						1	mg/l	lb/day			
t. Magnesium, Total (7439-95-4)	X		144						1	mg/l	lb/day			
u. Molybdenum, Total (7439-98-7)		X	0.011						1	mg/l	lb/day			
v. Manganese, Total (7439-96-5)		X	0.10						1	mg/l	lb/day			
w. Tin, Total (7440-31-5)		X	< 0.02						1	mg/l	lb/day			
x. Titanium, Total (7440-32-6)		X	0.073						1	mg/l	lb/day			

CONTINUE ON PAGE V-3

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612572 (McManus)	Ash Pond (Grab)

Form Approved.
OMB No. 2040-0086
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PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for the pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X		X	< 0.005						1	mg/l	lb/day			
2M. Arsenic, Total (7440-38-2)	X	X		0.067						1	mg/l	lb/day			
3M. Beryllium, Total, 7440-41-7	X		X	< 0.001						1	mg/l	lb/day			
4M. Cadmium, Total (7440-43-9)	X		X	< 0.0007						1	mg/l	lb/day			
5M. Chromium Total (7440-47-3)	X		X	< 0.005						1	mg/l	lb/day			
6M. Copper, Total (7440-50-8)	X	X		0.026						1	mg/l	lb/day			
7M. Lead, Total (7439-92-1)	X		X	< 0.001						1	mg/l	lb/day			
8M. Mercury, Total (7439-97-6)	X		X	< 0.0005			Method?			1	mg/l	lb/day			
9M. Nickel, Total (7440-02-0)	X		X	< 0.005						1	mg/l	lb/day			
10M. Selenium, Total (7782-49-2)	X	X		0.028						1	mg/l	lb/day			
11M. Silver, Total (7440-22-4)	X		X	< 0.005						1	mg/l	lb/day			
12M. Thallium, Total (7440-28-0)	X		X	< 0.001						1	mg/l	lb/day			
13M. Zinc, Total (7440-66-6)	X	X		< 0.01						1	mg/l	lb/day			
14M. Cyanide, Total (57-12-5)	X		X	< 0.025						1	mg/l	lb/day			
15M. Phenols, Total	X		X	< 0.05						1	mg/l	lb/day			
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

.5 ms

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1V. Acrolein (107-02-8)	X		X	< 0.05						1	mg/l	lb/day			
2V. Acrylonitrile (107-13-1)	X		X	< 0.05						1	mg/l	lb/day			
3V. Benzene (71-43-2)	X		X	< 0.002						1	mg/l	lb/day			
4V. Bis(*Chloromethyl*) Ether (542-88-1)	X		X	< 0.01						1	mg/l	lb/day			
5V. Bromoform (75-25-2)	X		X	< 0.01						1	mg/l	lb/day			
6V. Carbon Tetrachloride(56-23-5)	X		X	< 0.002						1	mg/l	lb/day			
7V. Chlorobenzene (108-90-7)	X		X	< 0.01						1	mg/l	lb/day			
8V. Chlorodibromomethane (124-48-1)	X		X	< 0.01						1	mg/l	lb/day			
9V. Chloroethane (75-00-3)	X		X	< 0.005						1	mg/l	lb/day			
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	X		X	< 0.01						1	mg/l	lb/day			
11V. Chloroform (67-66-3)	X		X	< 0.002						1	mg/l	lb/day			
12V. Dichlorobromomethane (75-71-8)	X		X	< 0.01						1	mg/l	lb/day			
13V. Dichlorodifluoromethane (75-71-8)	X		X	< 0.01						1	mg/l	lb/day			
14V. 1,1-Dichloroethane (75-34-3)	X		X	< 0.002						1	mg/l	lb/day			
15V. 1,2-Dichloroethane (107-06-2)	X		X	< 0.002						1	mg/l	lb/day			
16V. 1,1-Dichloroethylene (75-35-4)	X		X	< 0.002						1	mg/l	lb/day			
17V. 1,2-Dichloropropane (78-87-5)	X		X	< 0.002						1	mg/l	lb/day			
18V. 1,3-Dichloropropylene (542-75-6)	X		X	< 0.002						1	mg/l	lb/day			
19V. Ethylbenzene (100-41-4)	X		X	< 0.02						1	mg/l	lb/day			
20V. Methyl Bromide (74-83-9)	X		X	< 0.01						1	mg/l	lb/day			
21V. Methyl Chloride (74-87-3)	X		X	< 0.01						1	mg/l	lb/day			

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EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
GAD000612572 (McManus)	Ash Pond (Grab)

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	X		X	< 0.01						1	mg/l	lb/day			
23V. 1,1,2,2Tetra-chloroethane (79-34-5)	X		X	< 0.002						1	mg/l	lb/day			
24V. Tetrachloroethylene (127-18-4)	X		X	< 0.002						1	mg/l	lb/day			
25V. Toluene (108-88-3)	X		X	< 0.002						1	mg/l	lb/day			
26V. 1,2-Trans-Dichloro-ethylene (156-60-5)	X		X	< 0.002						1	mg/l	lb/day			
27V. 1,1,1-Trichloroethane (71-56-6)	X		X	< 0.002						1	mg/l	lb/day			
28V. 1,1,2-Trichloroethane (79-00-5)	X		X	< 0.002						1	mg/l	lb/day			
29V. Trichloroethylene (79-01-6)	X		X	< 0.002						1	mg/l	lb/day			
30V. Trichlorofluoro-methane (75-69-4)	X		X	< 0.01						1	mg/l	lb/day			
31V. Vinyl Chloride (75-01-4)	X		X	<0.01						1	mg/l	lb/day			
GC/MS FRACTION — ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X		X	<0.01						1	mg/l	lb/day			
2A. 2,4-Dichlorophenol (120-83-2)	X		X	<0.01						1	mg/l	lb/day			
3A. 2,4-Dimethylphenol (105-67-9)	X		X	<0.01						1	mg/l	lb/day			
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X		X	< 0.05						1	mg/l	lb/day			
5A. 2,4-Dinitrophenol (51-28-5)	X		X	< 0.05						1	mg/l	lb/day			
6A. 2-Nitrophenol (88-75-5)	X		X	< 0.05						1	mg/l	lb/day			
7A. 4-Nitrophenol (100-02-7)	X		X	< 0.05						1	mg/l	lb/day			
8A. P-Chloro-M-Cresol (59-50-7)	X		X	<0.01						1	mg/l	lb/day			
9A. Pentachlorophenol (87-86-5)	X		X	<0.02						1	mg/l	lb/day			
10A. Phenol (108-95-2)	X		X	<0.01						1	mg/l	lb/day			
11A. 2,4,6-Trichloro-phenol (88-06-2)	X		X	<0.01						1	mg/l	lb/day			

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X		X	< 0.01						1	mg/l	lb/day			
2B. Acenaphtylene (208-96-8)	X		X	< 0.01						1	mg/l	lb/day			
3B. Anthracene (120-12-7)	X		X	< 0.01						1	mg/l	lb/day			
4B. Benzidine (92-87-5)	X		X	< 0.08						1	mg/l	lb/day			
5B. Benzo *(a)* Anthracene (56-55-3)	X		X	< 0.01						1	mg/l	lb/day			
6B. Benzo *(a)* Pyrene (50-32-8)	X		X	< 0.01						1	mg/l	lb/day			
7B. 3,4-Benzo-fluoranthene (205-99-2_	X		X	< 0.01						1	mg/l	lb/day			
8B. Benzo *(ghi)* Perylene (191-24-2)	X		X	< 0.01						1	mg/l	lb/day			
9B. Benzo *(k)*Fluoranthene (207-08-9)	X		X	< 0.01						1	mg/l	lb/day			
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	X		X	< 0.01						1	mg/l	lb/day			
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)	X		X	< 0.01						1	mg/l	lb/day			
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X		X	< 0.01						1	mg/l	lb/day			
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)	X		X	< 0.01						1	mg/l	lb/day			
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X		X	< 0.01						1	mg/l	lb/day			
15B. Butyl Benzyl Phthalate (85-68-7)	X		X	< 0.01						1	mg/l	lb/day			
16B. 2-Chloronaphthalene (91-58-7)	X		X	< 0.01						1	mg/l	lb/day			
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X		X	< 0.01						1	mg/l	lb/day			
18B. Chrysene (218-01-9)	X		X	< 0.01						1	mg/l	lb/day			
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X		X	< 0.01						1	mg/l	lb/day			
20B. 1,2-Dichloro-benzene (95-50-1)	X		X	< 0.01						1	mg/l	lb/day			
21B. 1,3-Dichloro-benzene (541-73-1)	X		X	< 0.01						1	mg/l	lb/day			

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EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)	X		X	< 0.01						1	mg/l	lb/day			
23B. 3,3-Dichlorobenzidine (91-94-1)	X		X	< 0.02						1	mg/l	lb/day			
24B. Diethyl Phthalate (84-66-2)	X		X	< 0.01						1	mg/l	lb/day			
25B. Dimethyl Phthalate (131-11-3)	X		X	< 0.01						1	mg/l	lb/day			
26B. Di-N-Butyl Phthalate (84-74-2)	X		X	< 0.01						1	mg/l	lb/day			
27B. 2,4-Dinitrotoluene (121-14-2)	X		X	< 0.02						1	mg/l	lb/day			
28B. 2,6-Dinitrotoluene (606-20-2)	X		X	< 0.02						1	mg/l	lb/day			
29B. Di-N-OctylPhthalate (117-84-0)	X		X	< 0.01						1	mg/l	lb/day			
30B. 1,2-Diphenyl-hydrazine (as Azobenzene) (122-66-7)	X		X	< 0.01						1	mg/l	lb/day			
31B. Fluoranthene (206-44-0)	X		X	< 0.01						1	mg/l	lb/day			
32B. Fluorene (86-73-7)	X		X	< 0.01						1	mg/l	lb/day			
33B. Hexachlorobenzene (118-74-1)	X		X	< 0.01						1	mg/l	lb/day			
34B. Hexachlorobutadiene (87-68-3)	X		X	< 0.01						1	mg/l	lb/day			
35B. Hexachlorocyclo-pentadiene (77-47-4)	X		X	< 0.01						1	mg/l	lb/day			
36B. Hexachloroethane (67-72-1)	X		X	< 0.01						1	mg/l	lb/day			
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	X		X	< 0.01						1	mg/l	lb/day			
38B. Isophorone (78-59-1)	X		X	< 0.01						1	mg/l	lb/day			
39B. Naphthalene (91-20-3)	X		X	< 0.01						1	mg/l	lb/day			
40B. Nitrobenzene (98-95-3)	X		X	< 0.01						1	mg/l	lb/day			
41B. N-Nitrosodimethylamine (62-75-9)	X		X	< 0.01						1	mg/l	lb/day			
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X		X	< 0.01						1	mg/l	lb/day			

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS (continued)															
43B. N-Nitrosodiphenylamine (86-30-6	X		X	< 0.01						1	mg/l	lb/day			
44B. Phenanthrene (85-01-8)	X		X	< 0.01						1	mg/l	lb/day			
45B. Pyrene (129-00-0)	X		X	< 0.01						1	mg/l	lb/day			
46B. 1,2,4-Trichlorobenzene (120-82-1)	X		X	< 0.01						1	mg/l	lb/day			
GC/MS FRACTION — PESTICIDES															
1P. Aldrin (309-00-2)			X							1	mg/l	lb/day			
2P. α-BHC (319-84-6)			X							1	mg/l	lb/day			
3P. β-BHC (319-85-7)			X							1	mg/l	lb/day			
4P. γ-BHC (58-89-9)			X							1	mg/l	lb/day			
5P. δ-BHC (319-86-8)			X							1	mg/l	lb/day			
6P. Chlordane (57-74-9)			X							1	mg/l	lb/day			
7P. 4,4'-DDT (50-29-3)			X							1	mg/l	lb/day			
8P. 4,4'-DDE (72-55-9)			X							1	mg/l	lb/day			
9P. 4,4'-DDD (72-54-8)			X							1	mg/l	lb/day			
10P. Dieldrin (60-57-1)			X							1	mg/l	lb/day			
11P. α-Endosulfan (115-29-7)			X							1	mg/l	lb/day			
12P. β-Endosulfan (115-29-7)			X							1	mg/l	lb/day			
13P. Endosulfan Sulfate (1031-07-8)			X							1	mg/l	lb/day			
14P. Endrin (72-20-8)			X							1	mg/l	lb/day			
15P. Endrin Aldehyde (7421-93-4)			X							1	mg/l	lb/day			
16P. Heptachlor (76-44-8)			X							1	mg/l	lb/day			

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EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
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Form Approved.
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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — PESTICIDES (continued)															
17P. Heptachlor Epoxide (1024-57-3)			X							1	mg/l	lb/day			
18P. PCB-1242 (53469-21-9)	X		X	< 0.0009						1	mg/l	lb/day			
19P. PCB-1254 (11097-69-1)	X		X	< 0.0009						1	mg/l	lb/day			
20P. PCB-1221 (11104-28-2)	X		X	< 0.0009						1	mg/l	lb/day			
21P. PCB-1232 (11141-16-5)	X		X	< 0.0009						1	mg/l	lb/day			
22P. PCB-1248 (12672-29-6)	X		X	< 0.0009						1	mg/l	lb/day			
23P. PCB-1260 (11096-82-5)	X		X	< 0.0009						1	mg/l	lb/day			
24P. PCB-1016 (12674-11-2)	X		X	< 0.0009						1	mg/l	lb/day			
25P. Toxaphene (8001-35-2)			X							1	mg/l	lb/day			

PLANT McMANUS
ASH POND COTREATMENT
SUMMARY TABLE

A) DRY WEATHER (PROCESS) FLOWS	(Maximum Flows used)		
02A Low Volume Waste		2.3 MGD	1600 GPM
02B Ash Transport		2.88 MGD	2000 GPM
02C Chemical Cleaning		0 MGD	0 GPM
Total Dry Weather (Process) Flow		5.18 MGD	
B) RAINFALL RUNOFF (Using SCS Method)			
Watershed Surface Area		64.00	
Ash Ponds Surface Area		31.00	
Total Runoff Area		95.00 Acres	
10-year, 24 hour storm		7.5 inches	
Annual Rainfall		50.7 inches	(0.139 inches/day)
Equivalent Direct Run-off		6.8 inches	
TOTAL Rainfall Runoff		17.51 MG	
C) REQUIRED WATER VOLUME			
(A) Dry Weather Flow + (B) Rainfall Runoff =		22.69 MG	OR 112,349 CY

D) ASH POND REMAINING STORAGE (See Note 2 and Note 3)

Based on remaining gas-fired (NO coal burned)

Projected Remaining Pond Volume for Wet Storage on 12/31

YEAR	2006	2007	2008	2009	2010	2011
CU YDS	128,721	128,721	128,721	128,721	128,721	128,721
MG	26.0	26.0	26.0	26.0	26.0	26.0

E) AVAILABLE WATER VOLUME on 12/31/2011			
See (D) Above and Notes 2 & 3 Below	26.0 MG	OR	128,721 CY

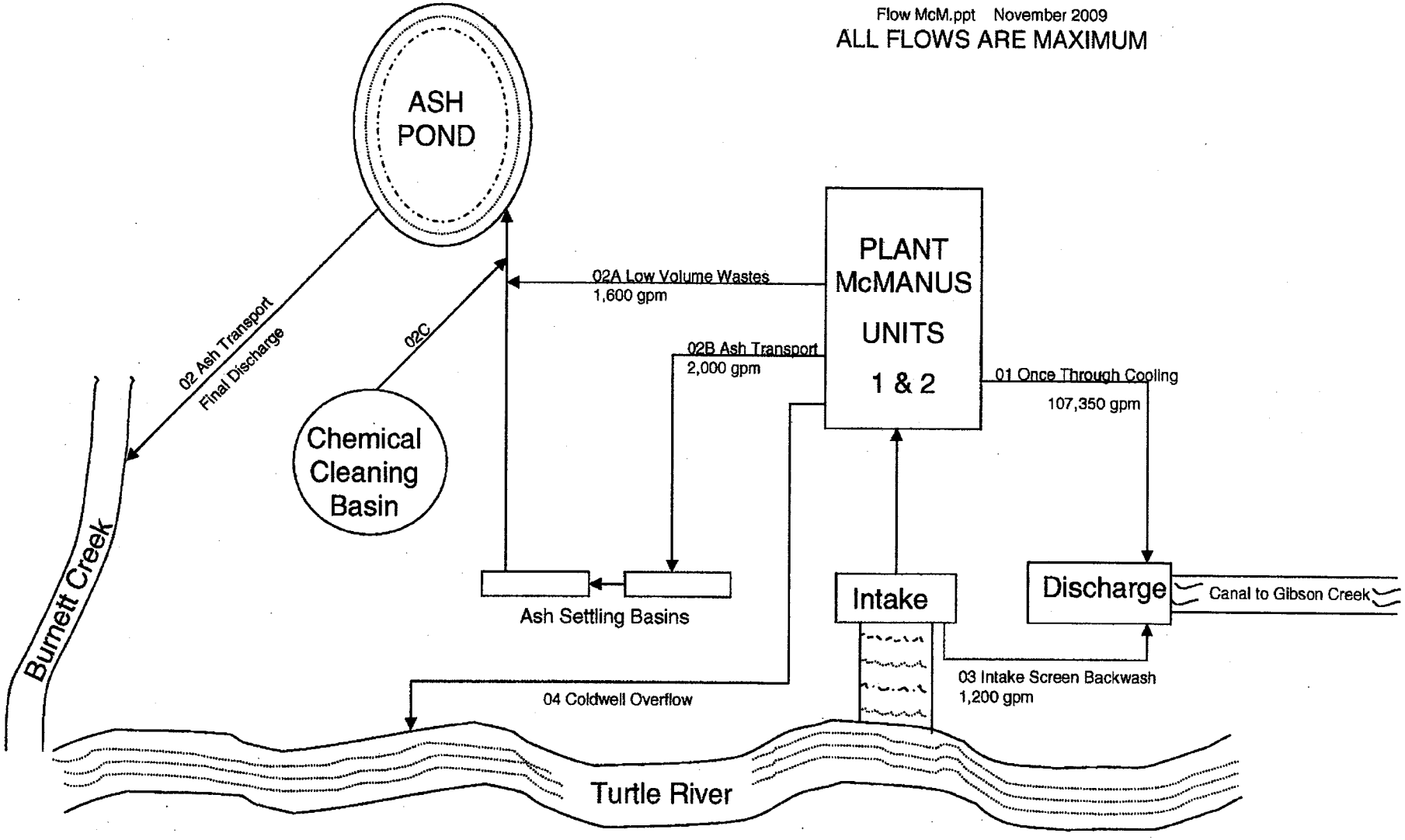
FROM ABOVE, (E) IS GREATER THAN (C), THEREFORE ASH POND CAPACITY IS SUFFICIENT

NOTES:
1. The rainfall runoff was determined using the Soil Conservation Service (SCS) Method and Georgia Manual for Sediment and Erosion Control, 2000 edition.
2. Available volume is based on the volume remaining per 1997 calculations (Strict Interpretation).
3. Volume remaining projected through year 2011 assumes that the Plant will continue to be operated as an oil fired facility with NO use of coal.

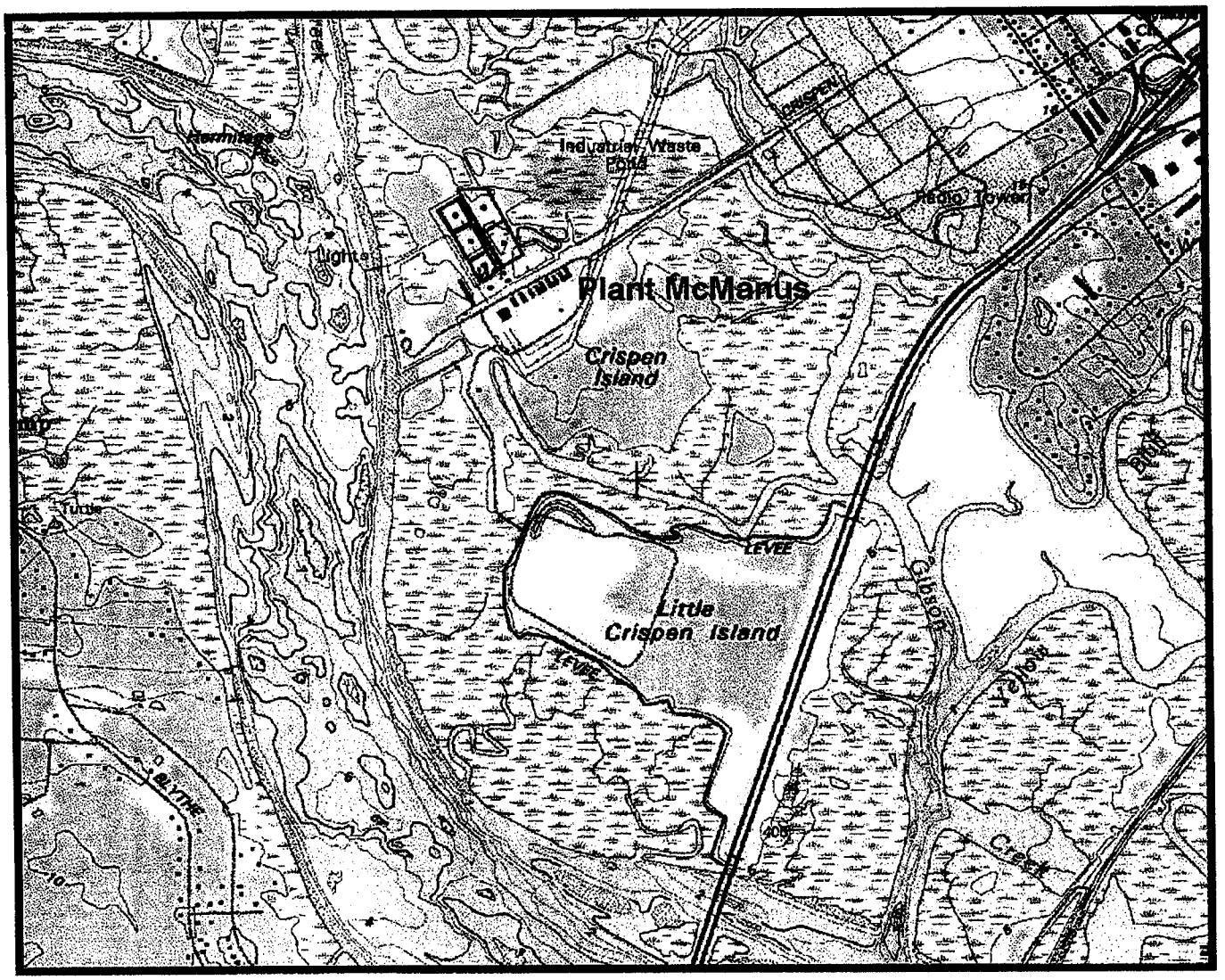
GEORGIA POWER COMPANY
PLANT McMANUS
NPDES PERMIT NO. GA0003794

Flow McM.ppt November 2009

ALL FLOWS ARE MAXIMUM



Plant McManus



USGS Brunswick West (GA) Quadrangle

Plant McManus, NPDES Permit No. GA0003794
Permit Renewal Application

Attachment 4 – 316(b) Cooling Water Intake Structures information

United State Supreme Court decision regarding the 316(b) rule

On April 1, 2009, the U.S. Supreme Court decided that the Second Circuit Court of Appeals had been wrong to prohibit the weighing of costs against benefits when selecting "best technology available" under § 316(b) of the Clean Water Act. The decision is Entergy Corp. v. Riverkeeper, Inc., No. 07-588, 129 S. Ct. 1498 (U.S. April 1, 2009). Generally, the Entergy v. Riverkeeper decision says that it may be "unreasonable" to require technologies that have costs "far in excess" of the benefits. A permitting decision that required "wholly disproportionate" costs might violate the fundamental principle of administrative law that agency decisions be "reasonable" and "rational."

Plant McManus Cooling Water Intake Structures information

With the uncertainties associated with the content of a revised future rule, especially as it relates to cost-benefit issues, it is premature to invoke costly control technologies at this plant until promulgation of a final rule.

Even though the rule has been suspended, the previous rule required submittal of key information, including source water physical data, cooling water intake structure data, and cooling water system data in accordance with 40 CFR 122.21(r)(2), (3) and (5). The information is provided below:

Source water physical data.

Plant McManus withdraws cooling water from the Turtle River, a tidally influenced estuary.

A topographical map showing the location of Plant McManus is included with the application package.

Cooling water intake structure data.

Plant McManus has once-through cooling for both generating units, which are served by one intake structure. The cooling water intake structure is submerged and its entrance is located at the end of an 800 foot long constructed channel which is perpendicular to the Turtle River flow. Maximum water depth along the intake canal centerline at high tide is approximately 14 ft. The structure is equipped with an outer trash rack designed to screen coarse debris and two vertical traveling screens positioned behind the trash rack. The screens are stainless steel mesh with 3/8-inch openings and designed to remove smaller debris and impinged organisms. Traveling screens are rotated intermittently based on debris loading. Screened materials and/or organisms are removed from the screens with a high pressure screen-wash system and sluiced to the plant's discharge canal via a 16.5-inch aluminum clad plastic pipe that empties into the discharge canal leading to Gibson Creek.

The structure does not house intake pumps. Rather, the structure is at the head of a tunnel under the powerhouse from which condenser cooling pumps and other smaller pumps draw water to deliver through the condensers and auxiliary systems. The structure is located at latitude 31°12'45" and longitude -81°32'51". Plant McManus operates primarily as a peaking power facility coming on line in response to varying electric power demands. The facility can be brought on-line at any time when system demands require its operation. Considering the annual generating potential of the steam electric units at the facility, actual operation results in a capacity utilization rate of less than 15 percent.

Cooling water system data.

The CWIS at Plant McManus utilizes four circulating pumps (two per power generating unit) to withdraw once-through cooling water at a maximum nameplate design rate of 154.58 million gallons per day (MGD). Individual pumping capacities of the circulating water pumps (two per unit) are 17,175 gallons per minute (gpm) each for Unit 1 and 36,500 gpm each for Unit 2.

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GA0003794 #4

KJ's comments on Georgia Power -Plant McManus
Karrie-Jo Shell to: Pamala Myers 07/26/2010 07:09 AM
Cc: Mark Nuhfer

This is a minor primary.

1. I need the permit application.
2. It appears that there is a mercury TMDL associated with Turtle Creek. If so, I recommend mercury monitoring requirements be placed in the permit for outfall that discharges to Turtle Creek. Quarterly monitoring for one year should be OK; they should use EPA 1631E or method 245.7.
3. The footnote for the instantaneous Temperature limits reads: The discharge temperature is the average of the temperature at three feet below the surface of Gibson Creek and the temperature at one foot above the bottom of Gibson Creek, both readings to be taken at the confluence of Gibson Creek and Yellow Bluff Creek at the limits of the defined mixing zone. Temperature will also be monitored at plant intake."

a. This is a run-on sentence that needs to be re-written.
b. The way the temperature is limited is not correct. First, an "instantaneous maximum" should not be determined based on an **average** of measurements. Second, the temperature limit is in the table for **effluent** measurements, but the footnote refers to locations **in-stream**. Lastly, the is clearly a MZ for temperature,so the dimensions and a better explanation of the reason for the MZ should be documented in the FS.

I recommend:
a. Place effluent monitoring only conditions for temperature in the Effluent Limitations Table. This will provide useful information for future temperature modeling and will also make the permit more enforceable b/c the way the permit is currently constructed there is not direct tie between the effluent temperature and what is being measured in-stream.
b. Have a separate condition in the permit that addresses the in-stream limits that apply at the edge of the temperature mixing zone. Also, have a separate condition for measuring influent temperature. Lastly, the in-stream temperature (I assume at the edge of the MZ) limit is in two parts - not to exceed 90 F **or** 1.5 F above the intake temperature. Therefore, the permit should specify that the intake temperature and the in-stream measurement should be taken on within a specific timeframe of one another. I recommend they both be taken within 1-2 hours of one another.

I checked the previous permits, and note that the temperature conditions in this permit have been carried over for at least the last two permit cycles. I'm sorry that I didn't catch this problem before... :/
Karrie-Jo Robinson-Shell, P.E.

Summary of NPDES Permit Rationale

check TMDL

Name Georgia Power – Plant McManus NPDES No. GA0003794

Location Brunswick, Glynn County Major Discharge _____

Minor Discharge X Date 6/21/10 Prepared By Alan Leake

Draft permit is: first issuance _____ ; reissuance with no modifications from previous permit X ; or modification of existing permit _____ .

Discharge is: industrial X ; municipal _____ ; or privately owned (domestic wastewater only) _____ . If industrial, point source category is 40 CFR 423 - Generation of Electricity category is _____ production level is 115 MW , SIC code is 4911 .

Facility located on stream segment that is and the basis for derivation of limitation is:

_____ Stream water quality limited
- _____ Based on water quality model
- _____ Based on instream calculation at 7 day, 10 year low flow

X Stream effluent limited
- X Based on promulgated guidelines
- _____ Based on plant's demonstrated performance
- _____ Based on demonstrated technology

Discussion:
TRO substituted for TRC due to potential of bromine/bromides in intake water. Cooling water pollutants of concern are Ti & Zn. Cr was detected at a higher level in the intake and Ag was not detected in retest. Water quality standards for Ti & Zn are 86 & 48 ug/l, respectively. Assuming a D.F. of 1.5, IWCs are 26 & 13 ug/l. both Ti & Zn are less than 50% of the WQS, so no monitoring is required.
The facility previously conducted an analysis of the mercury content of the intake water & effluent of the facility and determined that they did not contribute to the mercury load in the Turtle River. Changes were made in the permit to clarify and identify the different discharge outfalls, to address 316(b) requirements, and to address the ash pond integrity issues.
With the uncertainties associated with the content of a revised future rule (316(b) Phase II), especially as it relates to cost-benefit issues, it is premature to invoke costly control technologies at this plant until promulgation of a final rule, especially considering the low capacity factor for Plant McManus.

Appropriate Line(s) After Permit Issuances:

_____ Public Comments were received during public notice period.
_____ Final permit was unchanged from draft permit.
_____ Final permit included changes from draft permit. See attached draft permit and/or correspondence file for details.

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#5

Georgia Department of Natural Resources

Environmental Protection Division, Watershed Protection Branch
Permitting, Compliance and Enforcement Program
4220 International Parkway, Suite 101, Atlanta, Georgia 30354
404/362-2680
FAX 404/362-2691

June 30, 2010

Mr. Charles Huling
VP, Environmental Affairs
Georgia Power – Plant McManus
241 Ralph McGill Blvd., NE
Atlanta, Georgia 30308

Re: NPDES Permit No. GA0003794
Plant McManus
Brunswick, Glynn County, GA

Dear Mr. Huling:

The Environmental Protection Division (EPD) has received your application for a permit to discharge treated wastewater to the waters of the State of Georgia. We are processing your application and intend to issue in the near future a National Pollutant Discharge Elimination System (NPDES) Permit in accordance with the Georgia Water Quality Control Act and the Federal Clean Water Act. However, before issuing the permit, we require that you circulate a Public Notice by posting the notice at the entrance of the County Courthouse. Within 7 days of receipt of this letter, the Public Notice should be posted and remain for a period of thirty days. At the end of the 30-day public notice period, the EPD will make a determination on issuance of the NPDES Permit. Please provide written confirmation as soon as possible to indicate that you have satisfied the requirements of this letter. Please be aware that failure to satisfy the public notice requirements may result in the need to revoke your permit.

Attached is a copy of the Public Notice and the draft NPDES Permit, which contains the proposed conditions of your permit. If you have any comments or questions concerning the Permit or the Public Notice, please contact Alan Leake at 404-362-2621 or send an E-mail message to Alan_Leake@dnr.state.ga.us.

Sincerely,

D. Weatherill

Dominic Weatherill
Unit Coordinator
Industrial Wastewater Unit

DW:awl

Attachments

cc: Mr. Chris Thomas (w/attachments via E-mail)
U.S. Environmental Protection Agency

PUBLIC NOTICE
GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

NOTICE OF APPLICATION FOR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT TO DISCHARGE TREATED WASTEWATER INTO WATERS OF THE STATE OF GEORGIA.

The Georgia Environmental Protection Division has received a new NPDES permit application for the reissuance of an existing NPDES permit. Having reviewed such application, the Environmental Protection Division proposes to issue for a maximum term of five years the following permit subject to specific pollutant limitations and special conditions.

> **Georgia Power Company, Post Office Box 4545, Atlanta, Georgia 30302, NPDES Permit No. GA0003794, for its Plant McManus facility located at One Crispen Island, Brunswick in Glynn County. An average daily flow of 22.7 mgd of once through condenser cooling water is discharged to Gibson Creek and approximately 5.2 mgd of wastewater is discharged from the ash pond into Burnett Creek. Both discharges are in the Satilla River Basin.**

Persons wishing to comment upon or object to the proposed determinations are invited to submit same in writing to the EPD address below, no later than thirty (30) days after this notification. All comments received prior to or on that date will be considered in the formulation of final determinations regarding the application. A public hearing may be held where the EPD Director finds a significant degree of public interest in a proposed permit or group of permits. Additional information regarding public hearing procedures is available by writing the Environmental Protection Division.

A fact sheet or copy of the draft permit is available by writing the Environmental Protection Division. A copying charge of 10¢ per page after first 25 pages will be assessed. The permit application, draft permit, comments received, and other information are available for review at 4220 International Parkway, Suite 101, Atlanta, Georgia, between the hours of 9:00 a.m. and 4:00 p.m., Monday through Friday.

PERMIT NO. GA0003794

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), hereinafter called the State Act; the Federal Water Pollution Control Act, as amended (33 U.S. C. 1251 et seq.), hereinafter called the Federal Act; and the Rules and Regulations promulgated pursuant to each of these Acts,

Georgia Power Company
Bin 10221
241 Ralph McGill Blvd. N.E.
Atlanta, Georgia 30308-3374

DRAFT

is authorized to discharge from a facility located at

Plant McManus, Glynn County, Georgia

to receiving waters

Turtle River, Gibson Creek and Burnette Creek

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II and III hereof.

This permit shall become effective on _.

This permit and the authorization to discharge shall expire at midnight, July 31, 2015.

Signed this th day of , 2010.

Director,
Environmental Protection Division

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning effective date and lasting through July 31, 2015, the permittee is authorized to discharge from outfall(s) serial number(s) 01 – Once Through Condenser Cooling Water.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	(mg/l)				Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Inst. Max.			
Flow (MGD)	------	------	-------	---------	Continuous	*1	Circulating Pumps
Temperature (°F) *3	------	------	N/A	90 or 1.5 above intake temp. *2	1/Week	In Situ	*2
Total Residual Oxidants (TRO)	------	------	-------	*6	*7	Multiple Grabs *5	*4

There shall be no discharge of floating solids or visible foam in other than trace amounts.

DRAFT

*1 Determined from pump logs.

*2 The discharge temperature is the average of the temperature at three feet below the surface of Gibson Creek and the temperature at one foot above the bottom of Gibson Creek, both readings to be taken at the confluence of Gibson Creek and Yellow Bluff Creek at the limits of the defined mixing zone. Temperature will also be monitored at plant intake.

*3 Temperature measurements will be confined to the hours of 9:00 a.m. to 6:00 p.m. The time of measurement and tide stage will also be recorded for each sample. Temperature will only be measured when facility is operating.

*4 End of discharge tunnel prior to mixing with other waters.

*5 Multiple grab samples are to be collected on 15-minute intervals during periods of TRO discharges attributable to cooling water chlorination.

*6 Instantaneous measured TRO of any one grab sample shall not exceed 0.2 mg/l. TRO time shall not exceed 120 minutes per day.

*7 TRO shall be measured once per week during unit operation and once per month during off-line periods.

2. During the period beginning effective date and lasting through , 2015, the permittee is authorized to discharge from outfall(s) serial number(s) 02 – Ash Transport Water and Low Volume Waste Discharge.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Conc. Based (mg/l)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	-------	-------			2/month	Instantaneous	Effluent *
Total Suspended Solids (TSS)	-------	-------	30	100	2/month	Grab	Effluent *
Oil and Grease	-------	-------	15	20	2/month	Grab	Effluent *

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored twice per month by grab sample of effluent* while pond is overflowing.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

*Effluent is the ash pond overflow. Sample shall be collected while basin is overflowing. If there is no flow, this shall be stated on the Operation Monitoring Report.

3. During the period beginning effective date and lasting through , 2015, the permittee is authorized to discharge from outfall(s) serial number(s) 03 – Intake Screen Backwash.

Such discharges shall be limited and monitored by the permittee as specified below:

How can we tell w/o monitoring?

The discharge shall consist only of intake screen backwash. If the Director determines that water quality standards are not being met as the result of this discharge and so notifies the permittee in writing, the permittee shall take all reasonable steps to minimize any adverse impact to wasters of the State.

4. During the period beginning effective date and lasting through , 2015, the permittee is authorized to discharge from outfall(s) serial number(s) 04 – Coldwell Overflow/Stormwater.

Such discharges shall be limited and monitored by the permittee as specified below:

What do they monitor? report? limits?

The discharge shall consist only of coldwell overflow and stormwater. If the Director determines that water quality standards are not being met as the result of this discharge and so notifies the permittee in writing, the permittee shall take all reasonable steps to minimize any adverse impact to wasters of the State.

B. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

N/A

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

   Note: EPD as used herein means the Environmental Protection Division of the Department of Natural Resources.

C. MONITORING AND REPORTING

1. Representative Sampling

   Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Reporting

   Monitoring results obtained during the previous three months shall be summarized for each month and reported on an Operation Monitoring Report (Form WQ 1.45). Forms other than Form WQ 1.45 may be used upon approval by EPD. These forms and any other required reports and information shall be completed, signed and certified by a principal executive officer or ranking elected official, or by a duly authorized representative of that person, and submitted to the Division, postmarked no later than the 21st day of the month following the reporting period. Signed copies of these and all other reports required herein shall be submitted to the following address:

   Georgia Environmental Protection Division
   Coastal District Office
   400 Commerce Center Drive
   Brunswick, Georgia 31523

   All instances of noncompliance not reported under Part I. B., C. and D. shall be reported at the time the operation monitoring report is submitted.

3. Definitions

   a. The "daily average" mass means the total discharge by mass during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days sampled during the calendar month when the measurements were made.

   b. The "daily maximum" mass means the total discharge by mass during any calendar day.

c. The "daily average" concentration means the arithmetic average of all the daily determinations of concentrations made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample.

d. The "daily maximum" concentration means the daily determination of concentration for any calendar day.

e. A calendar day is defined as any consecutive 24-hour period.

f. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

g. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources, which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

4. Test Procedures

Monitoring must be conducted according to test procedures approved pursuant to 40 CFR Part 136 unless other test procedures have been specified in this permit.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The exact place, date, and time of sampling or measurements, and the person(s) performing the sampling or the measurements;

b. The dates the analyses were performed, and the person(s) who performed the analyses;

c. The analytical techniques or methods used; and

d. The results of all required analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Operation Monitoring Report Form (WQ 1.45). Such increased monitoring frequency shall also be indicated. The Division may require by written notification more frequent monitoring of other pollutants not required in this permit.

7. Records Retention

The permittee shall retain records of all monitoring information, including all records of analyses performed, calibration and maintenance of instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this

permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Division at any time.

8. Penalties

The Federal Clean Water Act and the Georgia Water Quality Control Act provide that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine or by imprisonment, or by both. The Federal Clean Water Act and the Georgia Water Quality Control Act also provide procedures for imposing civil penalties which may be levied for violations of the Act, any permit condition or limitation established pursuant to the Act, or negligently or intentionally failing or refusing to comply with any final or emergency order of the Director of the Division.

D. MANAGEMENT REQUIREMENTS

1. Change in Discharge

a. Advance notice to the Division shall be given of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements. Any anticipated facility expansions, production increases, or process modifications must be reported by submission of a new NPDES permit application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the Division of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

b. All existing manufacturing, commercial, mining, and silviculture dischargers shall notify the Division as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (I) 100 μg/l, (ii) five times the maximum concentration reported for that pollutant in the permit application, or (iii) 200 μg/l for acrolein and acrylonitrile, 500 μg/l for 2,4 dinitrophenol and for 2-methyl-4-6-dinitrophenol, or 1 mg/l antimony.

c. All existing manufacturing, commercial, mining, and silvicultural dischargers shall notify the Division as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in any discharge on a nonroutine or infrequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (I) 500 μg/l, (ii) ten times the maximum concentration reported for that pollutant in the permit application, or (iii) 1 mg/l antimony.

2. Noncompliance Notification

If, for any reason, the permittee does not comply with, or will be unable to comply with any effluent limitation specified in this permit, the permittee shall provide the Division with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

a. A description of the discharge and cause of noncompliance; and

b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

3. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypassing

a. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Division at least 10 days (if possible) before the date of the bypass. The permittee shall submit notice of any unanticipated bypass with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

1. A description of the discharge and cause of noncompliance; and

2. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

b. Any diversion or bypass of facilities covered by this permit is prohibited, except (I) where unavoidable to prevent loss of life, personal injury, or severe property damage; (ii) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if the permittee could have installed adequate back-up equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and (iii) the permittee submitted a notice as required above. The permittee shall operate the treatment works, including the treatment plant and total sewer system, to minimize discharge of the pollutants listed in Part I of this permit from combined sewer overflows or bypasses. Upon written notification by the Division, the permittee may be required to submit a plan and schedule for reducing bypasses, overflows, and infiltration in the system.

6. Sludge Disposal Requirements

Hazardous sludge shall be disposed of in accordance with the regulations and guidelines established by the Division pursuant to the Federal Clean Water Act (CWA) and the Resource Conservation and Recovery Act (RCRA). For land application of nonhazardous sludge, the permittee shall comply with any applicable criteria outlined in the Division's "Guidelines for Land Application of Municipal Sludges." Prior to disposal of sludge by land application, the permittee shall submit a proposal to the Division for approval in accordance with applicable criteria in the Division's "Guidelines for Land Application of Municipal Sludges." Upon evaluation of the permittee's proposal, the Division may require that more stringent control of this activity is required. Upon written notification, the permittee shall submit to the Division for approval, a detailed plan of operation for land application of sludge. Upon approval, the plan will become a part of the NPDES permit. Disposal of non-hazardous sludge by other means, such as landfilling, must be approved by the Division.

7. Sludge Monitoring Requirements

The permittee shall develop and implement procedures to insure adequate year-round sludge disposal. The permittee shall monitor the volume and concentration of solids removed from the plant. Records shall be maintained which document the quantity of solids removed from the plant. The ultimate disposal of solids shall be reported monthly (in the unit of lbs/day) to the Division with the Operation Monitoring Report Forms required under Part I C. 2. of this permit.

8. Power Failures

Upon the reduction, loss, or failure of the primary source of power to said water pollution control facilities, the permittee shall use an alternative source of power if available to reduce or otherwise control production and/or all discharges in order to maintain compliance with the effluent limitations and prohibitions of this permit.

If such alternative power source is not in existence, and no date for its implementation appears in Part I, the permittee shall halt, reduce or otherwise control production and/or all discharges from wastewater control facilities upon the reduction, loss, or failure of the primary source of power to said wastewater control facilities.

E. RESPONSIBILITIES

1. Right of Entry

The permittee shall allow the Director of the Division, the Regional Administrator of EPA, and/or their authorized representatives, agents, or employees, upon the presentation of credentials:

a. To enter upon the permittee's premises where a regulated activity or facility is located or conducted or where any records are required to be kept under the terms and conditions of this permit; and

b. At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and to sample any substance or parameters in any location.

2. Transfer of Ownership or Control

A permit may be transferred to another person by a permittee if:

a. The permittee notifies the Director in writing of the proposed transfer at least thirty (30) days in advance of the proposed transfer;

b. A written agreement containing a specific date for transfer of permit responsibility and coverage between the current and new permittee (including acknowledgement that the existing permittee is liable for violations up to that date, and that the new permittee is liable for violations from that date on) is submitted to the Director at least thirty (30) days in advance of the proposed transfer; and

c. The Director, within thirty (30) days, does not notify the current permittee and the new permittee of the Division's intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

3. Availability of Reports

Except for data deemed to be confidential under O.C.G.A. 12-5-26 or by the Regional Administrator of the EPA under the Code of Federal Regulations, Title 40, Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at an office of the Division. Effluent data, permit applications, permittee's names and addresses, and permits shall not be considered confidential.

4. Permit Modification

After written notice and opportunity for a hearing, this permit may be modified, suspended, revoked or reissued in whole or in part during its term for cause including, but not limited to, the following:

a. Violation of any conditions of this permit;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge; or

d. To comply with any applicable effluent limitation issued pursuant to the order the United States District Court for the District of Columbia issued on June 8, 1976, in Natural Resources Defense Council, Inc. et.al. v. Russell E. Train, 8 ERC 2120(D.D.C. 1976), if the effluent limitation so issued:

(1) is different in conditions or more stringent than any effluent limitation in the permit; or

(2) controls any pollutant not limited in the permit.

5. Toxic Pollutants

what does this really mean?

The permittee shall comply with effluent standards or prohibitions established pursuant to Section 307(a) and Section 301(b)2 of the Federal Clean Water Act for toxic pollutants, which are present in the discharge within the time provided in the regulations that establish these

standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

6. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

7. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Federal Clean Water Act.

8. Water Quality Standards

Nothing in this permit shall be construed to preclude the modification of any condition of this permit when it is determined that the effluent limitations specified herein fail to achieve the applicable State water quality standards.

9. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Expiration of Permit

Permittee shall not discharge after the expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information, forms, and fees as are required by the agency authorized to issue permits no later than 180 days prior to the expiration date.

11. Contested Hearings

Any person who is aggrieved or adversely affected by an action of the Director of the Division shall petition the Director for a hearing within thirty (30) days of notice of such action.

12. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

13. Best Management Practices

The permittee will implement best management practices to control the discharge of hazardous and/or toxic materials from ancillary manufacturing activities. Such activities include, but are not limited to, materials storage areas, in-plant transfer, process and material handling areas; loading and unloading operations; plant site runoff; and sludge and waste disposal areas.

14. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

15. Duty to Provide Information

a. The permittee shall furnish to the Director of the Division, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish upon request copies of records required to be kept by this permit.

b. When the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or any report to the Director, it shall promptly submit such facts and information.

16. Stormwater Runoff

Why are they not required to get a sep. SW pmt.?

In addition to the outfalls identified in Part I, Section A. of this permit, the permittee is authorized to discharge stormwater runoff from point sources at this facility provided that these discharges do not cause violations of State water quality standards in the receiving streams.

17. Upset Provisions

Provisions of 40 CFR 122.41(n)(1)-(4), regarding "Upset" shall be applicable to any civil, criminal, or administrative proceeding brought to enforce this permit.

F. PREVIOUS PERMITS

1. All previous State water quality permits issued to this facility, whether for construction or operation, are hereby revoked by the issuance of this permit. This action is taken to assure compliance with the Georgia Water Quality Control Act, as amended, and the Federal Clean Water Act, as amended. Receipt of the permit constitutes notice of such action. The conditions, requirements, terms and provisions of this permit authorizing discharge under the National Pollutant Discharge Elimination System govern discharges from this facility.

G. SPECIAL REQUIREMENTS

1. There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

2. Any metal cleaning wastes generated will be contained for further treatment or disposal in a manner to permit compliance at time of discharge with requirements listed below or disposed in a manner approved by the Division. This applies to any preoperational chemical cleaning of metal process equipment also. The treatment and disposal procedures shall be discussed in the flow monitoring and characterization submittal.

NO! do it now!

3. The quantity of pollutants discharged in metal cleaning waste shall not exceed the quantity determined by multiplying the flow of metal cleaning wastes times the concentrations listed below. All effluent characteristics shall be monitored 1/week by grab sampling with a discharge is occurring.

Why aren't these in a table up front?

Effluent Characteristic	Discharge Limitation (mg/l)	
	Daily Average	Daily Maximum
Total suspended solids	30	100
Oil and grease	15	20
Copper	1.0	1.0
Iron	1.0	1.0

4. The permittee will develop a system for monitoring and recording total time of TRO discharges. The results shall be reported in a suitably concise form beginning with the first scheduled Operation Monitoring Report (OMR) and continuing on each OMR thereafter.

5. In the event that waste streams for various sources are combined for treatment of discharge, the quantity of each pollutant or pollutant property controlled by this permit shall not exceed the specified limitations for that source.

6. The Director may modify any effluent limitations upon request of the permittee if such limitation is covered by an approved variance or by an amendment to the Federal Clean Water Act. Monitoring under Part I.A.1. shall be applicable only during periods of operation of the facility or during periods of effluent discharge.

7. The effluent limits for all metals in this permit shall be defined and reported in terms of total recoverable metal in conformance with the appropriate language of the applicable Federal regulations.

8. Upon approval of the Director, the permittee shall, on a case-by-case basis, be able to utilize alternative analytical methods, conversion factors, methodology, procedures, or new technologies, to ensure that the bio-monitoring and toxicity reduction requirements of Part I. H. and the testing/reporting requirements of the permit are adequately addressed.

9. The provisions of 40 CFR 122.41(l)(6)(iii) regarding waiver of the 5 day written report required by Part I D.2. and D.5. of this permit shall be applicable and may be implemented on a case-by-case basis by EPD for non-compliances which are orally reported by the permittee within 24 hours of discovery of the noncompliance condition.

10. The Division recognizes the inherent analytical variability in approved test methods and procedures and further agrees that such issues can be raised by the permittee as a defense in an enforcement action.

11. If the results for a given sample are such that a parameter is not detected at or above the method detection limit or reporting limit, a value of zero will be reported for that sample and the method detection limit or reporting limit will also be reported. Such sample shall be deemed to be in compliance with the permit limit.

12. The permittee is authorized to discharge stormwater from the outfalls identified in Part I. A. of this permit provided that these discharges do not cause violations of State water quality standards in the receiving streams.

H. BIOMONITORING AND TOXICITY REDUCTION REQUIREMENTS

In order to determine whether the permittee is discharging wastes in concentrations or combinations which may have an adverse impact on the States water quality, the division can require the permittee to conduct a bio-monitoring program.

If toxicity is suspected in the effluent, the EPD may require the permittee to perform any of the following actions:

1. Within 90 days of Division notification a screening program study plan detailing the test methodology and test organisms shall be submitted for conducting a forty-eight hour static acute test of the final effluent.

   Note: If residual chlorine is present in the final effluent from a treatment and/or disinfection process, a prechlorinated or dechlorinated sample will be tested.

2. Within 90 days of Division approval of the study plan, the permittee shall conduct and submit the results of the forty-eight hour static acute test.

The Division will then review the results of the forty-eight hour static acute test. If the test criteria specified in the study plan are exceeded, then the permittee shall within 90 days of written notification by the Division repeat steps 1. and 2. above replacing the forty-eight hour static acute test with the ninety-six hour test.

The Division will then review the results of the ninety-six hour test. If the criteria* detailed in the ninety-six hour test indicates toxicity, then the permittee shall within 90 days of written notification by the division submit to the Division a plan to reduce the toxicity of the effluent. Within 270 days of Division approval of this plan, the permittee shall implement the plan and initiate follow-up biomonitoring of the effluent in accordance with the approved toxicity reduction plan. The toxicity reduction plan shall not be complete until the permittee meets the criteria detailed in the ninety-six hour test plan.

If there are substantial composition changes in the permittees effluent, the permittee may be required to repeat the forty-eight hour static acute test upon notification by the Division. Unless otherwise advised, the permittee shall perform biomonitoring of the effluent as provided in H. 1. and 2. above, at a minimum of once every three years upon notification by the Division. On a case specific basis, chronic toxicity testing procedures may be required. Upon approval by the Division, all of the plans will become part of the requirements of this permit.

* The 96 hour criteria shall define toxicity as a greater than 10% mortality of the exposed test organisms in 96 hours or less when the test solution contains volumes of effluent and dilution water proportional to the plant daily average flow and the 7Q10 flow of the receiving stream, as determined using test procedures and methods, and statistical methods for evaluating test results, developed by the permittee and approved by the Division pursuant to this section, or revised pursuant to Part I.G.8. above.

pg. 12 of 13

Summary of NPDES Permit Rationale

Name Georgia Power – Plant McManus NPDES No. GA0003794

Location Brunswick, Glynn County Major Discharge _____

Minor Discharge X Date 6/21/10 Prepared By Alan Leake

Draft permit is: first issuance _____ ; reissuance with no modifications from previous permit X ; or modification of existing permit _____ .

Discharge is: industrial X ; municipal _____ ; or privately owned (domestic wastewater only) _____ . If industrial, point source category is 40 CFR 423 - Generation of Electricity category is _____ production level is 115 MW , SIC code is 4911 .

Facility located on stream segment that is and the basis for derivation of limitation is:

_____ Stream water quality limited
- _____ Based on water quality model
- _____ Based on instream calculation at 7 day, 10 year low flow

X Stream effluent limited
- X Based on promulgated guidelines
- _____ Based on plant's demonstrated performance
- _____ Based on demonstrated technology

Discussion:

No changes were made from the last issuance of the permit. Here is an explanation from the last rationale. *TRO substituted for TRC due to potential of bromine/bromides in intake water. Cooling water pollutants of concern are Ti & Zn. Cr was detected at a higher level in the intake and Ag was not detected in retest. Water quality standards for Ti & Zn are 86 & 48 ug/l, respectively. Assuming a D.F. of 1.5, IWCs are 26 & 13 ug/l. both Ti & Zn are less than 50% of the WQS, so no monitoring is required.*

don't evaluate WQ for all?

Appropriate Line(s) After Permit Issuances:

_____ Public Comments were received during public notice period.
_____ Final permit was unchanged from draft permit.
_____ Final permit included changes from draft permit. See attached draft permit and/or correspondence file for details.

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7/6/10 #6

Hg TMDL

To: "Alan Leake" <Alan.Leake@dnr.state.ga.us>,
Cc: "Dominic Weatherill" <Dominic.Weatherill@dnr.state.ga.us>, Karrie-Jo Shell/R4/USEPA/US@EPA, Mark Nuhfer/R4/USEPA/US@EPA,
Bcc:
Subject: Re: GaPower McManus Plt - draft permit

Mr. Weatherill:

Thank you for sending the draft permit for this facility to Region 4 to review. Ms Shell and I have the following comments to present for your concurrence and/or appeal.

1. We cannot tell from the draft permit which outfalls the metal cleaning wastes will be monitored from. Can this be defined in a way that any effluent limitations guidelines applied to them are more easily understood? Ms Shell has indicated to me, that this comment has been made before on other similar draft permits.
2. The draft permit appears to omit some of the outfalls, can a description of the internal monitoring outfall points be included in the final permit for clarification of all outfalls included in the application ?
3. We do not find where the permit addresses any requirement pertaining to the Federal 316(b) intake structure rule. Can you please revise the draft permit to indicate what the existing controls might be ?
   - Are they Best Technology Available (BTA)?
   - Or are there other controls in place not addressed here?
4. Because the site utilizes an Ash Pond Structure for waste ash storage, EPA would like to see details in the permit to address the structural integrity of the ash pond and please explain how those integrity determinations are made. An example of the requirements for inspections, reporting and compliance would be helpful.

If you have questions about our comments, please do not hesitate to contact me or Ms Shell.

Again, we thank you for submitting this draft permit for review.

Pamala Myers

Pamala Myers | Environmental Engineer and Technical Advisor
Pollution Control and Implementation Branch | Water Protection Division
Municipal and Industrial NPDES Section | U.S. EPA, Region 4 | Atlanta, GA 30303 |
Office 404.562.9421 | Fax 404.562.8692

"Alan Leake" I have attached a PDF copy of the draft permit p... 07/01/2010 03:47:05 PM

From: "Alan Leake" <Alan.Leake@dnr.state.ga.us>
To: Chris Thomas/R4/USEPA/US@EPA
Cc: "Dominic Weatherill" <Dominic.Weatherill@dnr.state.ga.us>, Pamala Myers/R4/USEPA/US@EPA, Mark Nuhfer/R4/USEPA/US@EPA, Karrie-Jo Shell/R4/USEPA/US@EPA, Gene Stanford/R4/USEPA/US@EPA
Date: 07/01/2010 03:47 PM
Subject: GaPower McManus Plt - draft permit

I have attached a PDF copy of the draft permit package for Georgia Power Plant McManus NPDES Permit No. GA0003794. Please confirm receipt.
Thank you.

Alan Leake
Environmental Engineer III
GA EPD - Watershed Protection Branch

404.362.2621 draft permit.pdf GP SITE MAP.pdf application.pdf Alan Leake8.vcf

ROUTING and SCREENING of DRAFT PERMIT

Routing **Permits Clerk** **Complete this section and log into database.** ***(Within 2 days of receipt)*** 316(b)? Industrial power plant fossil	**STATE:** GA **NPDES NUMBER:** GA0003794 **FACILITY NAME:** GaPower McManus Plant **DRAFT REC'VD:** July 6, 2010 Is this listed on the **Priority Permit List?** Y / (N) **ENFORCEMENT coordination** neede[illegible] If yes, make copy and send to Enforcem[illegible] **Date sent** _____ **OTHER coordination** needed? (Y) / [illegible] **Date sent** 7/6/10 ___ Major ___ General Permit X Minor Primary ___ Other ___ CAFO
Give to Permit Reviewer	***See most current listing of State Coordinat[illegible]*** P. Myers

1) no pH limit needed for OTCW
2) ~~need to put metal cle~~ need to indicate outfall for metal cleaning waste. We have made this comment before.
3) permit should address 316b, should state if the existing controls are BTA, or not.
4) permit should address structural integrity of ash pond.

Screening **By State Coordinator** ***(Ensure permit is copied and sent within 5 days of receipt of permit.)***	**Initial Preliminary Screen**	**Yes**	**No**	**Comments**
				KS re-sent the Ash pond email to all including D.W.
	Is this a CAFO facility?			Send Email to him to discuss issues
	Is this a Power Plant facility? Is this permit a Pulp & Paper facility?	✓		? do they use any biocides?
	Has this permit been requested for review by others (i.e. Enforcement)?			Date sent: _____ Date due: _____

The Basic Review Checklist (Review of Impairment) shall be done by the State Coordinator within the timeframe set out in the MOA (unless review is to be done by another person; then, as noted above, the Basic Review is to be done by the State Coordinator within 5 days of receipt of permit). Completion of the Basic Review Checklist is on the reverse side. If required, as documented in the SOP, the Detailed Review Checklist shall be completed and included with the Basic Review Checklist. Checklists and other documentation shall be placed in the administrative permit file.

Actions taken from the review will be documented on the Basic Review Checklist (reverse) by the State coordinator (or alternate reviewer) and logged in the database.

08-04-2008

FOSSIL PLT.

BASIC REVIEW CHECKLIST

(404)

NPDES Number GA0003794 **State Contact (Name & Phone #)** Alan Leake 362-2621

Facility Name GaPower Plant McManus - Brunswick, GA

Section 1 Basic Review Preliminary Screen		Yes	No	Comments (Unless specifically requested otherwise, EPA will be reviewing permits listed on the Priority Permit lists, majors, minor primaries, CAFOs, Power Plants, Pulp and Paper, and permits requested by Enforcement/Others for review)
NPDES Permit Review	Is this permit a major facility (or should be)?		✓	Minor Primary
	Is this permit a minor primary industrial facility?	✓		
	Is this permit listed on the Priority Permit List?		X	*Use flowchart "WHAT TYPE OF REVIEW WILL BE GIVEN TO A FACILITY" to determine level of review.*
	Is this a new or expanding facility?		X	
	Has a map been prepared to show any downstream impairment?		X	*If yes, include map.*

Section 2 Basic Review Review of Impairment (List all pollutants of concern that might be discharged by the facility that are going to impaired streams. If not applicable, list as "N/A.")	TMDL? Yes	TMDL? No	Adequate permit condition? Yes	Adequate permit condition? No	Comments (Note whether permit has included the appropriate implementation of the TMDL via limit or other condition. Where TMDL has not been developed/approved, for that pollutant, note whether adequate permit condition exists such as monitoring, limits, or other conditions have been applied based on EPA's 1999 policy and other supplemental State policies.)

Detailed Review	Yes	No	Comments
Is Detailed Review needed?	X		*If yes, complete Detailed Review Checklist and attach to the Basic Review Checklist.*

ACTION Complete Basic Review and Detailed Review (as needed) and note action taken Be sure to update tracking system.	RESPONSE Included hard copy in file: Sent email (date)	Sent letter (date)	Comments
			~~Where's Narrative Criterion?~~ No Trashpet
			The cover sheet already shows an expiration date - before it has been issued.
Waived			Application does not list - other pmts. AIR? RCRA?
No Comment			7=outfalls; 3=internal
Comments			pmt does not refer to specific ELG's / No WR
Interim Objection	XXXXXX		
Objection	XXXXXX		Sign & Date: [signature] 7/6/10

DETAILED REVIEW of DRAFT PERMIT

Fossil / OTCW Ash pond

NPDES Number GA0003794

Facility Name Ga Power – Plant McManus, Brunswick, GA

Information Completeness	Yes	No	Comments
Correct application?	✓		Type? 2C, Industrial
Complete application? [significant information to determine reasonable potential analysis]		X	only one outfall's data
Fact Sheet/ Rationale?	✓		not complete.
If new or expanded discharge, was anti-degradation analysis done?		X	
Is there a WQ variance (including WER) in the permit? If yes, send to Standard's Section for review.		X	

Application Review & Reasonable Potential	Yes	No	Comment/Data
7Q10			3 not provided
For industrials: Are pollutants noted as "Believed Absent" reasonable?			pmt does not cover 316(b)
For municipals: Are the screened pollutants values reasonable?			
For municipals: Have 3 pollutant analyses been performed within last 4-5 years?			
For municipals: Has whole effluent toxicity data been included?			Cooling water (Intakes) may be using biocides?
Did state follow its "Reasonable Potential" procedures?		X	NO
Do any EPA criteria apply?			*List pollutants:*
Are proper minimum levels of detection indicated?			

Review of Permit	Yes	No	Comments
Is "Boilerplate" complete?			*122.41 and 122.42*
Are all outfalls indicated in the application covered in the permit?		X	Monitoring w/ Limits — only covers 2 outfalls of (7).
Have any loadings been increased since the previous permit? If yes, explain.			
Have any limits been deleted, or made less stringent, since the previous permit? If yes, has backsliding been addressed?			
Are metals included in terms of "total recoverable"?			None included
Appropriate compliance schedule?		X	*122.47*
All monitoring requirements at least 1/year?	✓		*122.44(I)(1(ii)*
Are the monitoring frequencies reasonable and sampling locations included?		X	NOT ALL.
Toxicity language?		X	*If yes, complete WET Checklist and attach*
Are there any wastestreams that need internal limits?	✓		02A, 02B, 02C
Ambient monitoring required? If so, which pollutants? Also indicate upstream or downstream.	✓		Temp.

Review of Industrial Permit	Yes	No	Comments
Applicable Effluent Guideline?		X	316(b) ?
Are BMPs included?		X	
For continuous discharges, are daily maximum and monthly average limits included?		X	NO

Review of Municipal Permit	Yes	No	Comments
Secondary treatment requirements included?			*133*
Nutrients included?	N/A		___ *Limits included* ___ Monitoring only
For continuous dischargers, are weekly average and monthly average limits included?			*122.45(d)(2)*
Do pretreatment procedures apply?			*122.44(j) & 403*

Fact Sheet	Yes	No	Comments
Location of facility included?			
Does discharge impact a neighboring state?			close to FLA
Type of product included (if industrial permit)?	✓		Power
Long-term production included?		✓	
Basis for permit limits?			weak
Calculations included? Correct flows? Production values?			NO
Best Professional Judgment justification included?			NO
Any applicable seasonal limits justified?			NO
Final Decision Procedures included?			weak

Note any other additional comments below:

Initial and date: [signature] 7/6/10

06-11-20

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8/27/10

#7

PERMIT NO. GA0003794

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), hereinafter called the State Act; the Federal Water Pollution Control Act, as amended (33 U.S. C. 1251 et seq.), hereinafter called the Federal Act; and the Rules and Regulations promulgated pursuant to each of these Acts,

Georgia Power Company
Bin 10221
241 Ralph McGill Blvd. N.E.
Atlanta, Georgia 30308-3374

is authorized to discharge from a facility located at

Plant McManus, Glynn County, Georgia

to receiving waters

Turtle River, Gibson Creek and Burnette Creek

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II and III hereof.

This permit shall become effective on _.

This permit and the authorization to discharge shall expire at midnight, July 31, 2015.

Signed this th day of , 2010.

Director,
Environmental Protection Division

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through July 31, 2015, the permittee is authorized to discharge from outfall(s) **serial number(s) 01 – Once Through Condenser Cooling Water.**

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	**Discharge Limitations**				**Monitoring Requirements**		
	(mg/l)				Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Inst. Max.			
Flow (MGD)	------	------	-------	----------	Continuous	*1	Circulating Pumps
Temperature (°F) *3	------	------	N/A	90 or 1.5 above intake temp. *2	1/Week	In Situ	*2
Total Residual Oxidants (TRO)	------	------	------- --	*6	*7	Multiple Grabs *5	*4

There shall be no discharge of floating solids or visible foam in other than trace amounts.

*1 Determined from pump logs.

*2 The discharge temperature is the average of the temperature at three feet below the surface of Gibson Creek and the temperature at one foot above the bottom of Gibson Creek, both readings to be taken at the confluence of Gibson Creek and Yellow Bluff Creek at the limits of the defined mixing zone. Temperature will also be monitored at plant intake.

*3 Temperature measurements will be confined to the hours of 9:00 a.m. to 6:00 p.m. The time of measurement and tide stage will also be recorded for each sample. Temperature will only be measured when facility is operating.

*4 End of discharge tunnel prior to mixing with other waters.

*5 Multiple grab samples are to be collected on 15-minute intervals during periods of TRO discharges attributable to cooling water chlorination.

*6 Instantaneous measured TRO of any one grab sample shall not exceed 0.2 mg/l. TRO time shall not exceed 120 minutes per day.

*7 TRO shall be measured once per week during unit operation and once per month during off-line periods.

2. During the period beginning on the effective date and lasting through July 31, 2015, the permittee is authorized to discharge from outfall(s) **serial number(s) 02 – Ash Transport Water and Low Volume Waste Discharge** (combined discharges from outfalls 02A – Low Volume Waste and 02B – Ash Transport Water).

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	**Discharge Limitations**				**Monitoring Requirements**		
	Mass Based		Conc. Based (mg/l)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	-------	-------			2/month	Instantaneous	Effluent *
Total Suspended Solids (TSS)	-------	-------	30	100	2/month	Grab	Effluent *
Oil and Grease	-------	-------	15	20	2/month	Grab	Effluent *

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored twice per month by grab sample of effluent* while pond is overflowing.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

*Effluent is the ash pond overflow. Sample shall be collected while basin is overflowing. If there is no flow, this shall be stated on the Operation Monitoring Report.

3. During the period beginning on the effective date and lasting through July 31, 2015, the permittee is authorized to discharge from outfall(s) **serial number(s) 02C – Chemical Cleaning Discharge.**

The quantity of pollutants discharged in metal cleaning waste shall not exceed the quantity determined by multiplying the flow of metal cleaning wastes times the concentrations listed below. All effluent characteristics shall be monitored 1/week by grab sampling when a discharge is occurring.

Effluent Characteristics	Discharge Limitations (mg/l)	
	Daily Average	Daily Maximum
TSS	30	100
Oil & Grease	15	20
Copper	1.0	1.0
Iron	1.0	1.0

4. During the period beginning on the effective date and lasting through July 31, 2015, the permittee is authorized to discharge from outfall(s) **serial number(s) 03 – Intake Screen Backwash.**

Such discharges shall be limited and monitored by the permittee as specified below:

The discharge shall consist only of intake screen backwash. If the Director determines that water quality standards are not being met as the result of this discharge and so notifies the permittee in writing, the permittee shall take all reasonable steps to minimize any adverse impact to wasters of the State.

5. During the period beginning on the effective date and lasting through July 31, 2015, the permittee is authorized to discharge from outfall(s) **serial number(s) 04 – Coldwell Overflow/Stormwater.**

Such discharges shall be limited and monitored by the permittee as specified below:

The discharge shall consist only of coldwell overflow and stormwater. If the Director determines that water quality standards are not being met as the result of this discharge and so notifies the permittee in writing, the permittee shall take all reasonable steps to minimize any adverse impact to wasters of the State.

B. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

N/A

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

   Note: EPD as used herein means the Environmental Protection Division of the Department of Natural Resources.

C. MONITORING AND REPORTING

1. Representative Sampling

   Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Reporting

   Monitoring results obtained during the previous three months shall be summarized for each month and reported on an Operation Monitoring Report (Form WQ 1.45). Forms other than Form WQ 1.45 may be used upon approval by EPD. These forms and any other required reports and information shall be completed, signed and certified by a principal executive officer or ranking elected official, or by a duly authorized representative of that person, and submitted to the Division, postmarked no later than the 21st day of the month following the reporting period. Signed copies of these and all other reports required herein shall be submitted to the following address:

   Georgia Environmental Protection Division
   Coastal District Office
   400 Commerce Center Drive
   Brunswick, Georgia 31523

   All instances of noncompliance not reported under Part I. B., C. and D. shall be reported at the time the operation monitoring report is submitted.

3. Definitions

   a. The "daily average" mass means the total discharge by mass during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days sampled during the calendar month when the measurements were made.

   b. The "daily maximum" mass means the total discharge by mass during any calendar day.

c. The "daily average" concentration means the arithmetic average of all the daily determinations of concentrations made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample.

d. The "daily maximum" concentration means the daily determination of concentration for any calendar day.

e. A calendar day is defined as any consecutive 24-hour period.

f. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

g. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources, which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

4. Test Procedures

Monitoring must be conducted according to test procedures approved pursuant to 40 CFR Part 136 unless other test procedures have been specified in this permit.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The exact place, date, and time of sampling or measurements, and the person(s) performing the sampling or the measurements;

b. The dates the analyses were performed, and the person(s) who performed the analyses;

c. The analytical techniques or methods used; and

d. The results of all required analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Operation Monitoring Report Form (WQ 1.45). Such increased monitoring frequency shall also be indicated. The Division may require by written notification more frequent monitoring of other pollutants not required in this permit.

7. Records Retention

The permittee shall retain records of all monitoring information, including all records of analyses performed, calibration and maintenance of instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this

permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Division at any time.

8. Penalties

The Federal Clean Water Act and the Georgia Water Quality Control Act provide that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine or by imprisonment, or by both. The Federal Clean Water Act and the Georgia Water Quality Control Act also provide procedures for imposing civil penalties which may be levied for violations of the Act, any permit condition or limitation established pursuant to the Act, or negligently or intentionally failing or refusing to comply with any final or emergency order of the Director of the Division.

D. MANAGEMENT REQUIREMENTS

1. Change in Discharge

a. Advance notice to the Division shall be given of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements. Any anticipated facility expansions, production increases, or process modifications must be reported by submission of a new NPDES permit application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the Division of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

b. All existing manufacturing, commercial, mining, and silviculture dischargers shall notify the Division as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (I) 100 μg/l, (ii) five times the maximum concentration reported for that pollutant in the permit application, or (iii) 200 μg/l for acrolein and acrylonitrile, 500 μg/l for 2,4 dinitrophenol and for 2-methyl-4-6-dinitrophenol, or 1 mg/l antimony.

c. All existing manufacturing, commercial, mining, and silvicultural dischargers shall notify the Division as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in any discharge on a nonroutine or infrequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (I) 500 μg/l, (ii) ten times the maximum concentration reported for that pollutant in the permit application, or (iii) 1 mg/l antimony.

2. Noncompliance Notification

If, for any reason, the permittee does not comply with, or will be unable to comply with any effluent limitation specified in this permit, the permittee shall provide the Division with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

a. A description of the discharge and cause of noncompliance; and

b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

3. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypassing

a. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Division at least 10 days (if possible) before the date of the bypass. The permittee shall submit notice of any unanticipated bypass with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

1. A description of the discharge and cause of noncompliance; and

2. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

b. Any diversion or bypass of facilities covered by this permit is prohibited, except (I) where unavoidable to prevent loss of life, personal injury, or severe property damage; (ii) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if the permittee could have installed adequate back-up equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and (iii) the permittee submitted a notice as required above. The permittee shall operate the treatment works, including the treatment plant and total sewer system, to minimize discharge of the pollutants listed in Part I of this permit from combined sewer overflows or bypasses. Upon written notification by the Division, the permittee may be required to submit a plan and schedule for reducing bypasses, overflows, and infiltration in the system.

6. Sludge Disposal Requirements

Hazardous sludge shall be disposed of in accordance with the regulations and guidelines established by the Division pursuant to the Federal Clean Water Act (CWA) and the Resource Conservation and Recovery Act (RCRA). For land application of nonhazardous sludge, the permittee shall comply with any applicable criteria outlined in the Division's "Guidelines for Land Application of Municipal Sludges." Prior to disposal of sludge by land application, the permittee shall submit a proposal to the Division for approval in accordance with applicable criteria in the Division's "Guidelines for Land Application of Municipal Sludges." Upon evaluation of the permittee's proposal, the Division may require that more stringent control of this activity is required. Upon written notification, the permittee shall submit to the Division for approval, a detailed plan of operation for land application of sludge. Upon approval, the plan will become a part of the NPDES permit. Disposal of non-hazardous sludge by other means, such as landfilling, must be approved by the Division.

7. Sludge Monitoring Requirements

The permittee shall develop and implement procedures to insure adequate year-round sludge disposal. The permittee shall monitor the volume and concentration of solids removed from the plant. Records shall be maintained which document the quantity of solids removed from the plant. The ultimate disposal of solids shall be reported monthly (in the unit of lbs/day) to the Division with the Operation Monitoring Report Forms required under Part I C. 2. of this permit.

8. Power Failures

Upon the reduction, loss, or failure of the primary source of power to said water pollution control facilities, the permittee shall use an alternative source of power if available to reduce or otherwise control production and/or all discharges in order to maintain compliance with the effluent limitations and prohibitions of this permit.

If such alternative power source is not in existence, and no date for its implementation appears in Part I, the permittee shall halt, reduce or otherwise control production and/or all discharges from wastewater control facilities upon the reduction, loss, or failure of the primary source of power to said wastewater control facilities.

E. RESPONSIBILITIES

1. Right of Entry

The permittee shall allow the Director of the Division, the Regional Administrator of EPA, and/or their authorized representatives, agents, or employees, upon the presentation of credentials:

a. To enter upon the permittee's premises where a regulated activity or facility is located or conducted or where any records are required to be kept under the terms and conditions of this permit; and

b. At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and to sample any substance or parameters in any location.

2. Transfer of Ownership or Control

A permit may be transferred to another person by a permittee if:

a. The permittee notifies the Director in writing of the proposed transfer at least thirty (30) days in advance of the proposed transfer;

b. A written agreement containing a specific date for transfer of permit responsibility and coverage between the current and new permittee (including acknowledgement that the existing permittee is liable for violations up to that date, and that the new permittee is liable for violations from that date on) is submitted to the Director at least thirty (30) days in advance of the proposed transfer; and

c. The Director, within thirty (30) days, does not notify the current permittee and the new permittee of the Division's intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

3. Availability of Reports

Except for data deemed to be confidential under O.C.G.A. 12-5-26 or by the Regional Administrator of the EPA under the Code of Federal Regulations, Title 40, Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at an office of the Division. Effluent data, permit applications, permittee's names and addresses, and permits shall not be considered confidential.

4. Permit Modification

After written notice and opportunity for a hearing, this permit may be modified, suspended, revoked or reissued in whole or in part during its term for cause including, but not limited to, the following:

a. Violation of any conditions of this permit;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge; or

d. To comply with any applicable effluent limitation issued pursuant to the order the United States District Court for the District of Columbia issued on June 8, 1976, in Natural Resources Defense Council, Inc. et.al. v. Russell E. Train, 8 ERC 2120(D.D.C. 1976), if the effluent limitation so issued:

(1) is different in conditions or more stringent than any effluent limitation in the permit; or

(2) controls any pollutant not limited in the permit.

5. Toxic Pollutants

The permittee shall comply with effluent standards or prohibitions established pursuant to Section 307(a) and Section 301(b)2 of the Federal Clean Water Act for toxic pollutants, which are present in the discharge within the time provided in the regulations that establish these

standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

6. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

7. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Federal Clean Water Act.

8. Water Quality Standards

Nothing in this permit shall be construed to preclude the modification of any condition of this permit when it is determined that the effluent limitations specified herein fail to achieve the applicable State water quality standards.

9. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Expiration of Permit

Permittee shall not discharge after the expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information, forms, and fees as are required by the agency authorized to issue permits no later than 180 days prior to the expiration date.

11. Contested Hearings

Any person who is aggrieved or adversely affected by an action of the Director of the Division shall petition the Director for a hearing within thirty (30) days of notice of such action.

12. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

13. Best Management Practices

The permittee will implement best management practices to control the discharge of hazardous and/or toxic materials from ancillary manufacturing activities. Such activities include, but are not limited to, materials storage areas, in-plant transfer, process and material handling areas; loading and unloading operations; plant site runoff; and sludge and waste disposal areas.

14. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

15. Duty to Provide Information

a. The permittee shall furnish to the Director of the Division, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish upon request copies of records required to be kept by this permit.

b. When the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or any report to the Director, it shall promptly submit such facts and information.

16. Stormwater Runoff

In addition to the outfalls identified in Part I, Section A. of this permit, the permittee is authorized to discharge stormwater runoff from point sources at this facility provided that these discharges do not cause violations of State water quality standards in the receiving streams.

17. Upset Provisions

Provisions of 40 CFR 122.41(n)(1)-(4), regarding "Upset" shall be applicable to any civil, criminal, or administrative proceeding brought to enforce this permit.

F. PREVIOUS PERMITS

1. All previous State water quality permits issued to this facility, whether for construction or operation, are hereby revoked by the issuance of this permit. This action is taken to assure compliance with the Georgia Water Quality Control Act, as amended, and the Federal Clean Water Act, as amended. Receipt of the permit constitutes notice of such action. The conditions, requirements, terms and provisions of this permit authorizing discharge under the National Pollutant Discharge Elimination System govern discharges from this facility.

G. SPECIAL REQUIREMENTS

1. There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

2. Any metal cleaning wastes generated will be contained for further treatment or disposal in a manner to permit compliance at time of discharge with requirements listed in A.3. or disposed in a manner approved by the Division. This applies to any preoperational chemical cleaning of metal process equipment also. The treatment and disposal procedures shall be discussed in the flow monitoring and characterization submittal.

3. The permittee will develop a system for monitoring and recording total time of TRO discharges. The results shall be reported in a suitably concise form beginning with the first scheduled Operation Monitoring Report (OMR) and continuing on each OMR thereafter.

4. In the event that waste streams for various sources are combined for treatment of discharge, the quantity of each pollutant or pollutant property controlled by this permit shall not exceed the specified limitations for that source.

5. The Director may modify any effluent limitations upon request of the permittee if such limitation is covered by an approved variance or by an amendment to the Federal Clean Water Act. Monitoring under Part I.A.1. shall be applicable only during periods of operation of the facility or during periods of effluent discharge.

6. The effluent limits for all metals in this permit shall be defined and reported in terms of total recoverable metal in conformance with the appropriate language of the applicable Federal regulations.

7. Upon approval of the Director, the permittee shall, on a case-by-case basis, be able to utilize alternative analytical methods, conversion factors, methodology, procedures, or new technologies, to ensure that the bio-monitoring and toxicity reduction requirements of Part I. H. and the testing/reporting requirements of the permit are adequately addressed.

8. The provisions of 40 CFR 122.41(l)(6)(iii) regarding waiver of the 5 day written report required by Part I D.2. and D.5. of this permit shall be applicable and may be implemented on a case-by-case basis by EPD for non-compliances which are orally reported by the permittee within 24 hours of discovery of the noncompliance condition.

9. The Division recognizes the inherent analytical variability in approved test methods and procedures and further agrees that such issues can be raised by the permittee as a defense in an enforcement action.

10. If the results for a given sample are such that a parameter is not detected at or above the method detection limit or reporting limit, a value of zero will be reported for that sample and the method detection limit or reporting limit will also be reported. Such sample shall be deemed to be in compliance with the permit limit.

11. The permittee is authorized to discharge stormwater from the outfalls identified in Part I. A. of this permit provided that these discharges do not cause violations of State water quality standards in the receiving streams.

12. All impoundments used to hold or treat wastewater and other associated wastes shall be designed, constructed, operated, and maintained to prevent the discharge of pollutants to waters of the state, except as authorized by this permit. All impoundments shall be inspected, at a minimum, on a monthly basis by qualified personnel with knowledge and training of impoundment integrity. Training of site inspectors shall be conducted, at a minimum, on a yearly basis. This instruction shall be conducted by a qualified engineer or geologist under Southern Company's Dam Safety Program. The training shall be equivalent to the MSHA curriculum. The impoundment shall be inspected annually by a qualified dam safety engineer and a report of this inspection will be produced. Records of inspections shall be kept on site at the subject facility and available to State or Federal inspectors upon request.

13. Requirements Applicable to Cooling Water Intake Structures

    This permit may be reopened to address compliance with 316(b) requirements upon issuance of a new rule or final guidance by EPA.

H. BIOMONITORING AND TOXICITY REDUCTION REQUIREMENTS

In order to determine whether the permittee is discharging wastes in concentrations or combinations which may have an adverse impact on the States water quality, the division can require the permittee to conduct a bio-monitoring program.
If toxicity is suspected in the effluent, the EPD may require the permittee to perform any of the following actions:

1. Within 90 days of Division notification a screening program study plan detailing the test methodology and test organisms shall be submitted for conducting a forty-eight hour static acute test of the final effluent.

   Note: If residual chlorine is present in the final effluent from a treatment and/or disinfection process, a prechlorinated or dechlorinated sample will be tested.

2. Within 90 days of Division approval of the study plan, the permittee shall conduct and submit the results of the forty-eight hour static acute test.

The Division will then review the results of the forty-eight hour static acute test. If the test criteria specified in the study plan are exceeded, then the permittee shall within 90 days of written notification by the Division repeat steps 1. and 2. above replacing the forty-eight hour static acute test with the ninety-six hour test.

The Division will then review the results of the ninety-six hour test. If the criteria* detailed in the ninety-six hour test indicates toxicity, then the permittee shall within 90 days of written notification by the division submit to the Division a plan to reduce the toxicity of the effluent. Within 270 days of Division approval of this plan, the permittee shall implement the plan and initiate follow-up bio-monitoring of the effluent in accordance with the approved toxicity reduction plan. The toxicity reduction plan shall not be complete until the permittee meets the criteria detailed in the ninety-six hour test plan.

If there are substantial composition changes in the permittees effluent, the permittee may be required to repeat the forty-eight hour static acute test upon notification by the Division. Unless otherwise advised, the permittee shall perform bio-monitoring of the effluent as provided in H. 1. and 2. above, at a minimum of once every three years upon notification by the Division. On a case specific basis, chronic toxicity testing procedures may be required. Upon approval by the Division, all of the plans will become part of the requirements of this permit.

* The 96 hour criteria shall define toxicity as a greater than 10% mortality of the exposed test organisms in 96 hours or less when the test solution contains volumes of effluent and dilution water proportional to the plant daily average flow and the 7Q10 flow of the receiving stream, as determined using test procedures and methods, and statistical methods for evaluating test results, developed by the permittee and approved by the Division pursuant to this section, or revised pursuant to Part I.G.7. above.

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Summary of NPDES Permit Rationale

Name Georgia Power – Plant McManus NPDES No. GA0003794

Location Brunswick, Glynn County Major Discharge _____

Minor Discharge X Date 6/21/10 Prepared By Alan Leake

Draft permit is: first issuance _____ ; reissuance with no modifications from previous permit X ; or modification of existing permit _____ .

Discharge is: industrial X ; municipal _____ ; or privately owned (domestic wastewater only) _____ . If industrial, point source category is 40 CFR 423 - Generation of Electricity category is _____ production level is 115 MW , SIC code is 4911 .

Facility located on stream segment that is and the basis for derivation of limitation is:

_____ Stream water quality limited
- _____ Based on water quality model
- _____ Based on instream calculation at 7 day, 10 year low flow

X Stream effluent limited
- X Based on promulgated guidelines
- _____ Based on plant's demonstrated performance
- _____ Based on demonstrated technology

Discussion:
TRO substituted for TRC due to potential of bromine/bromides in intake water. Cooling water pollutants of concern are Ti & Zn. Cr was detected at a higher level in the intake and Ag was not detected in retest. Water quality standards for Ti & Zn are 86 & 48 ug/l, respectively. Assuming a D.F. of 1.5, IWCs are 26 & 13 ug/l. both Ti & Zn are less than 50% of the WQS, so no monitoring is required.
The facility previously conducted an analysis of the mercury content of the intake water & effluent of the facility and determined that they did not contribute to the mercury load in the Turtle River. Changes were made in the permit to clarify and identify the different discharge outfalls, to address 316(b) requirements, and to address the ash pond integrity issues.
With the uncertainties associated with the content of a revised future rule (316(b) Phase II), especially as it relates to cost-benefit issues, it is premature to invoke costly control technologies at this plant until promulgation of a final rule, especially considering the low capacity factor for Plant McManus.

Appropriate Line(s) After Permit Issuances:

_____ Public Comments were received during public notice period.
_____ Final permit was unchanged from draft permit.
_____ Final permit included changes from draft permit. See attached draft permit and/or correspondence file for details.

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MSC

#9

Environmental Affairs
Bin 10221
241 Ralph McGill Boulevard NE
Atlanta, Georgia 30308-3374

Tel 404.506.6526

October 22, 2003

OCT 24 2003

GEORGIA POWER
A SOUTHERN COMPANY

Mr. Jeffery H. Larson
Manager, Permitting, Compliance and Enforcement Program
Georgia Environmental Protection Division
4220 International Parkway – Suite 101
Atlanta, Georgia 30354

Dear Mr. Larson:

Re: Plant McManus
NPDES Permit No. GA0003794
Mercury TMDL sampling

Dear Mr. Larson:

As requested in your letter of August 30, 2002 to Mr. Chris Hobson, Georgia Power Company has monitored mercury in the source water and effluents at Plant McManus as specified in the TMDL for Total Mercury in the Satilla Watershed dated February 28, 2002. On September 17, 2003, clean technique sampling was conducted of the intake water, Outfall 01 - Once Through Condenser Cooling Water and Outfall 02 - Ash Transport Water and Low Volume Waste Discharge. Sampling and analyses were conducted by Skidaway Institute of Oceanography, which is one of the laboratories included in the list provided by EPD. Since Skidaway is not accredited as currently required by EPD for NPDES monitoring, we also had splits of these samples analyzed by Frontier Geosciences Inc., which is accredited and is also on EPD's list. These analyses yielded the following results:

Skidaway Institute of Oceanography

Sample	Total Hg, ng/l
Intake source water	4.3
Intake source water duplicate	4.4
01 - Once Through Condenser Cooling Water	3.9
01 - Once Through Condenser Cooling Water duplicate	3.4
02 - Ash Transport Water and Low Volume Waste	<0.2
02 - Ash Transport Water and Low Volume Waste duplicate	<0.2

Frontier Geosciences Inc.

Sample	Total Hg, ng/l
Intake source water	7.84
Intake source water duplicate	8.07
01 - Once Through Condenser Cooling Water	14.7
01 - Once Through Condenser Cooling Water duplicate	15.7
02 - Ash Transport Water and Low Volume Waste	1.75
02 - Ash Transport Water and Low Volume Waste duplicate	1.70

Frontier Geosciences Inc. provided the following accreditation stipulation:
Accreditor: NY/NELAP
Scope: CWA
Accreditation #: 11662
Effective: April 8, 2003
Expires: April 1, 2004

While Georgia Power Company collected this data and information in accordance with applicable standards and analytical practices, such information is always subject to the inherent variabilities and inaccuracies associated with sampling and measurement. Such variabilities and inaccuracies are not within the reasonable control of the permittee. Given the possible varying interpretations of this information, the data should not be interpreted as an admission by the permittee of any exceedances of applicable requirements. Further, for these reasons, among others, Georgia Power reserves the right to claim all legal and equitable defenses available to it.

Georgia Power contends that the inconsistency of these results reveals analytical variabilities and does not justify the need for further mercury characterization or minimization studies for Plant McManus. At these low levels, there is an increased potential of contamination of split samples occurring during handling and analysis by two separate laboratories. Outfall 01, the Once Through Condenser Cooling Water, is non-contact cooling water in which there is no known potential for contribution of additional mercury to the flow. From their sampling of this outfall during their development of this TMDL in 2000, EPA concluded that the total mercury effluent level of 9.45 ng/l was consistent with other source water sample results and that Plant McManus was not contributing to the mercury loading of the receiving water. Outfall 02, the Ash Transport Water and Low Volume Waste, which does have the potential to include waste streams from plant processes, consistently shows lower mercury levels than the TMDL water quality target of 2.5 ng/l. Therefore, it would be inappropriate to conclude that Plant McManus is a potential contributor to the mercury loading of the Turtle River.

If you have any questions or require additional information, please contact Bill Evans at 404-506-7031.

Sincerely,

M. E. Wilder

M. E. Wilder
Land and Water Programs Manager

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Shell, Karrie-Jo

To: Dickson, Audra
Cc: Staples, Bridget; Diaz, Denisse; Zimmer, Andrea; Davis, Molly
Subject: EPA comments on the draft NPDES perit for Plant Branch, GA0026051

This email transmits EPA Region 4's comments and recommendations on the draft permit for the Georgia Power Plant Branch NPDES permit. We received this draft permit via email on Friday May 5, 2017 , and the public hearing is scheduled for June 27, 2017. The facility was retired in April 2015 and only discharges ash pond wastewaters commingled with storm water.

1. Although we received the memo dated March 1, 2017 regarding the Reasonable Potential Analysis, the results of this analysis were not included in the submittal. Please send us the spreadsheet containing the methodology and assumptions. If the RPA did not use actual background concentrations of metals typically found in ash pond effluents, we recommend the permit require instream monitoring up- and down-stream of the facility's main outfall as soon as possible after the effective date of the permit. The monitoring should occur before dewatering commences, and the results should be used to revise the Reasonable Potential Analysis, as needed, to include appropriate water quality-based effluent limits. This will provide data to demonstrate/verify that the dewatering event will not cause or contribute to a violation of instream water quality standards.
2. All the discharges from the facility are to Lake Sinclair. Lakes typically have a 7Q10 of zero; however, based on the above mentioned March 1st memo, it appears that a dilution factor of 1:156 may have been used to do the RPA for all outfall. Please explain why dilution may have been considered.
3. The permit should specify the analytical test method numbers to be used for compliance. For example, the most sensitive method for mercury is EPA Method 1631E. Likewise, for other metals, EPA Method 245.7 is appropriate.
4. The permit should define the term "dewatering activity". For example, clarify how to differentiate between a dewatering activity from a typical discharge or drawdown event.
5. The permit includes a requirement for the permittee to develop a Coal Ash Pond Dewatering Plan (Plan) at least 90 days prior to commencing dewatering activities. The permit states that the Plan, at a minimum, must require sampling twice per month. We recommend more frequent monitoring for dewatering operations, based on monitoring results from other power plants in our region. Therefore, sampling to be performed during the dewatering operations should be a least weekly for the first few weeks and more often as the ash pond levels drops closer to the ash layer. This will ensure that instream water quality standards are not exceeded. Parameters should include pollutants common to ash pond discharges, such as: turbidity, TDS, Cu, Se, As, Hg, Cr, Pb, Cd, Zn, Ni, and hardness. Also, to ensure the integrity of the pond structure is not jeopardized if the pond water is drawn down too quickly, the Plan should specify the drawdown rate during dewatering operations. We recommend you confer with Georgia's Dam Safety Department to determine the maximum draw down rate to ensure stability during releases.
6. For the emergency ash pond outfalls (004, 005, & 006), the permit should specify the rainfall event for which the discharges will be authorized. The permit application states that the emergency ponds are designed to retain the 100Y24H storm, so I recommend the permit only allow discharges from these ponds during that storm events. Monitoring during discharge should include metals/pollutants commonly found in ash pond effluents: TDS, Cu, Se, As, Hg, Cr, Pb, Cd, Zn, Ni, and hardness. Also, for clarification, the effluent limitation tables for outfalls 004, 005 and 006 should be revised by replacing "2/month" with "See footnote 1" for the "Measurement Frequency". Additionally, sampling during an emergency discharge should be at least once daily during the first hour of the discharge (or some other specified time frame).
7. For compliance purposes, the permit should specify how flow will be estimated for all outfalls.

8. The permit requires the permittee to perform routine inspections of the dike walls/berm; however, because there may be seeps which occur below the dike berms, we recommend the plan also require inspections for seepages from the ash pond which may be hydrologically connected to waters of the State. In which case, such discharges would need to be covered under an NPDES permit.
9. Based on the flow schematic, all outfalls are inter-connected, which means all outfall have the ability to discharged ash pond effluent commingled with storm water. Per 40 CFR 423. 12 (b)(12), "In the event that waste streams from various sources are combined for treatment or discharge, the quantity for each pollutant or pollutant property controlled in paragraphs (b)(1) through (b)(11) of this section attributable to each controlled waste source shall not exceed the specified limitations for that waste stream." As such, the final limitations for all the outfalls must be adjusted to address commingling with storm water. Please refer to the attached EPA memo for how the re-calculated limits should be performed.

Karrie-Jo Robinson-Shell, P.E.
Environmental Engineer
US EPA Region 4
Water Protection Division
61 Forsyth Street
Atlanta, GA 30303
(404) 562-9308

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#11

Chronic Toxicity Testing Report

Plant Branch
NPDES Permit: GA0026051
1100 Milledgeville Road
Eatonton GA 31024

Test Period: April 21 through 28, 2015

Prepared for:
Amec Foster Wheeler
1075 Big Shanty Road, Suite 100
Kennesaw, Georgia 30144

Prepared by:
Amec Foster Wheeler
Biology-Toxicology Laboratory
404 SW 140th Terrace
Newberry, FL 32669
Telephone (352) 332-3318
NELAC# E82998

Pamela Bellotti
Biology-Toxicology Laboratory Director

Katherine Deliz, PhD
Environmental Scientist, Professional

STUDY ID:
Project No. 6123150089.02
May 8, 2015

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Appendix B. Test Organism Documents
Appendix C. Chemical and Physical Data
Appendix D. Effluent and Reference Toxicant Test Data Sheets

Glossary and Abbreviations

Acute	Involving a stimulus severe enough to rapidly induce a response; in toxicity tests, a response observed in 96 hours or less typically is considered acute.
CETIS	Comprehensive Environmental Toxicity Information System (Tidepool, 2008)
Chronic	Involving a stimulus that lingers or continues for a relatively long period of time, often one-tenth of the life span or more. A chronic effect can be lethality, growth, reduced reproduction, etc.
Chronic Value	A numeric value representing the geometric mean of the numeric values of concentrations analyzed as the IC25 (No Observed Effect Concentration) and the LOEC (Lowest Observed Effect Concentration) by chronic toxicity testing. The chronic value is an estimate of the toxicant concentration that will be the actual no effect concentration based on the chronic effect tested.
Critical Value	Minimum numeric value for a toxicity test endpoint (i.e., survival, growth, or reproduction) below which a given test result will be statistically significantly different from the control value.
DMW	Diluted Mineral Water
EC	Effective concentration, a point estimate of the toxicant concentration that would cause an adverse response such as death, immobilization, or serious incapacitation.
Ft-c	Foot candles - a measure of light intensity
Graphical Method	Log concentration versus percent mortality method. Toxicity test data are plotted on 2-cycle semi-log graph paper. The logarithmic axis (y axis) is used for percent effluent concentration, and the linear axis (x axis) is used for percent mortality. The graph provides a reasonably accurate estimate of the LC_{50}, but does not provide a confidence interval.
IC	Inhibition Concentration, a point estimate of the toxicant concentration that would cause a given percent reduction in a biological measurement such as fecundity or growth.
LC	Lethal Concentration, identical to EC when the observed response is death.
LC_{50}	The toxicant concentration that is lethal to 50 percent of exposed organisms at a specific time of observation.
LCL	Lower 95% Confidence Limit
LOEC	Lowest-Observed-Effect-Concentration, the lowest concentration of toxicant to which organisms are exposed that causes adverse effects.
LWC	Lab Water Control, moderately hard synthetic freshwater prepared from MILLIPORE MILLI-Q^R water and reagent grade chemicals.

Glossary and Abbreviations

Probit Analysis	Probit Analysis consists of a group of statistical methods used to analyze data from concentration-response experiments, and provides an estimate of the LC_{50} and the precision of this estimate. In Probit Analysis, the percentages of affected organisms are converted to Probits (probability units), and the effluent concentrations are converted to logarithms. The relationship between the Probits and the logarithmic values of the concentrations is approximately linear. A Probit regression line drawn through the data points is used to estimate the LC_{50} and its precision estimate. To use Probit Analysis, at least two partial mortalities must be obtained in the toxicity test.
RWC	Receiving Water Control
UCL	Upper 95% Confidence Limit
$\mu E/m^2/s$	Micro-Einsteins per square meter per second - a measure of light intensity
USEPA	U.S. Environmental Protection Agency

Executive Summary

Amec Foster Wheeler Biology Toxicology Laboratory performed chronic toxicity testing of effluent samples from Plant Branch from April 21 through 28, 2015. Toxicity testing was conducted using the water flea (*Ceriodaphnia dubia*) and the fathead minnow (*Pimephales promelas*). Effluent samples were diluted with laboratory dilution water to five concentrations including: control (0%), 6.25%, 12.5%, 25%, 50%, and 100% effluent.

The test was conducted to satisfy the requirements of National Pollutant Discharge Elimination System (NPDES) permit number GA0026051 [NOEC value greater than or equal to 50% effluent]. The toxicity test results did not indicate chronic toxicity to the water flea or the fathead minnow for sample concentrations tested below the requirements of the permit, when statistically compared to the laboratory control. For the samples tested April 21 through 28, 2015, the NOEC values were 100% effluent for both the water flea (survival and reproduction) and fathead minnow (survival and growth).

Results are summarized in the accompanying report. All test results contained herein comply with the requirements of the National Environmental Laboratory Accreditation Conference (NELAC). The results discussed in this report relate only to the samples tested during the period April 21 through 28, 2015; samples as identified on the Chain-of-Custody form (Appendix A). Organism data is located in Appendix B; chemical and physical test data in Appendix C; and Laboratory Test Data (bench sheets) and Statistical Analyses in Appendix D.

1.0 Introduction

Amec Foster Wheeler Biology Toxicology Laboratory performed chronic toxicity testing of effluent samples from Plant Branch from April 21 through 28, 2015. Effluent samples used for this test were collected on April 20, 22, and 24, 2015. Toxicity testing was conducted using the water flea (*Ceriodaphnia dubia*) and the fathead minnow (*Pimephales promelas*). Effluent samples were diluted with laboratory dilution water to five concentrations including: control (0%), 6.25%, 12.5%, 25%, 50%, and 100% effluent.

The test was conducted to satisfy the requirements of National Pollutant Discharge Elimination System (NPDES) permit number GA0026051. All raw data related to this study are maintained at Amec Foster Wheeler, 404 SW 140th Terrace, Newberry, Florida. The Amec Foster Wheeler Biology - Toxicology Laboratory personnel, procedures, equipment, facilities, and quality system have been certified by Florida Department of Health Bureau of Laboratories as compliant with the National Environmental Laboratory Accreditation Conference (NELAC) Standards, Florida Administrative Code Rule 64-E, and are accredited by the State of Florida to perform the tests reported herein (Lab Accreditation ID E82998, effective July 1, 2014 through June 30, 2015). The results discussed in this report relate only to the samples as identified on the Chain-of-Custody form (Appendix A), tested during the period April 21 through 28, 2015. A summary of US Environmental Protection Agency (USEPA) protocol test conditions for each test method is included in Section 2.4. Test Organism data is located in Appendix B; chemical and physical test data in Appendix C; and Laboratory Test Data (bench sheets) and Statistical Analyses in Appendix D.

2.0 Materials and Methods

2.1 Test Sample

Three samples of final effluent were collected from Plant Branch by Amec Foster Wheeler personnel on April 20, 22, and 24, 2015, and shipped on ice via overnight courier to the Amec Foster Wheeler Biology Toxicology Laboratory. The sample effluent temperatures upon receipt were 1.8 °C, 1.6 °C and 1.7 °C, respectively, which meets sample acceptance criteria; samples should be received at 0 to 6 °C. The effluent fell into expected ranges for pH, salinity and dissolved oxygen. All other chemical characterization of the effluent sample upon arrival in the laboratory is provided in Table 1.

Sample chain-of-custody records and other traffic information are provided in Appendix A. Each effluent sample tested was assigned a unique sample identification number: W15-APR-PLA-042115, W15-APR-PLA-042315, and W15-APR-PLA-042515. All subsequent replicates/splits were assigned, and labeled with unique identification codes, which reflect the effluent dilution (Appendix C).

Table 1. Initial Chemical Characterization of Plant Branch , Dilute Mineral Water (DMW) used in the Chronic Toxicity Tests for *C. dubia*, and Laboratory Control Water Moderately Hard Synthetic Fresh Water (MHSFW) Used in Chronic Toxicity Tests for *P. promelas*, April 21 through 28, 2015

Parameter	100% Effluent, Unique Sample Identification Number			Control	Control
	W15-APR-PLA-042115	W15-APR-PLA-042315	W15-APR-PLA-042515	DMW[a]	MHSFW[a]
Sample Date	04/20/2015	04/22/2015	04/24/2015	NA	NA
Date Received/Made	04/21/2015	04/23/2015	04/25/2015	04/18/2015	04/24/2015
Temperature on Receipt (°C)	1.8	1.6	1.7	24.8	26
Dissolved Oxygen (mg/L)	8.1	8.3	8.2	7.9	7.8
pH	6.9	7.7	7.3	8.2	7.4
Total Alkalinity as CaCO3 (mg/L)	239	29	44	44	41
Total Hardness as CaCO3 (mg/L)	303	308	288	78	69
Conductivity @25°C (µS/cm)	758	952	728	375	535
Residual Chlorine (mg/L)[c]	0.12	0.04	0.09	-	-
Ammonia-Nitrogen NH3-N (mg/L)[d]	0.05	0.17	0.12	-	-

Source: Amec FW, 2015 Prepared by: PSB Checked by: SAM
Unless otherwise noted, all chemical analyses determined according to EPA 600/4-79-020.
[a] Laboratory control water, DMW and MHSFW
[b] N/A=Not Applicable
[c] Determined by Hach Spectrophotometer at 25°C; SM 4500-CL G
[d] Determined by Hach Spectrophotometer at 25°C; SM 4500-NH3 B & C

2.2 Dilution Water

The water used for control and sample dilutions during the test was dilute mineral water (DMW) for the *C. dubia* and moderately hard synthetic fresh water (MHSFW) for the *P. promelas*. The dilution water was allowed to equilibrate to test temperature prior to use in testing.

2.3 Test Organisms

The test organisms were neonate *C. dubia* (less than 24 hours old) obtained from in-house cultures, and neonate *P. promelas* (less than 24 hours old) obtained from Hydrosphere. All organisms appeared to be in normal condition (i.e., eating and swimming normally) at test initiation. During holding (2 hours prior to test initiation) and on days 1 through 6, *C. dubia* were fed 0.1 milliliters (mL) of yeast/trout chow/cereal leaves mixture and 0.1 mL of *Selenastrum* concentrate (green algae); and *P. promelas* were fed approximately 2 mL of newly hatched (less than 24-hr old) brine shrimp nauplii on day 0, and approximately 0.2 mL newly hatched (less than 24-hr old) brine shrimp nauplii on days 1 through 6.

2.4 Test Methods

The chronic toxicity test was performed according to the procedures described in "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms," US Environmental Protection Agency (USEPA)-821-R-02-013, Test Methods 1002.0 and 1000.0 (USEPA, 2002) and is in compliance with NELAC standards. Test conditions for the chronic test are presented in Tables 2 and 3.

Table 2. Summary of Toxicity Test Conditions for the Water Flea, *Ceriodaphnia dubia*, Survival and Reproduction Test [EPA-821-R-02-013, Test Method 1002.0 (EPA, 2002)]

Test type	Static renewal definitive
Temperature	25±1°C (Recommended) Test temperatures must not deviate (maximum-minimum temperature) by more than 3°C during the test (required)
Light quality	Ambient laboratory illumination
Light intensity	10-20 µE/m2/s (50-100 ft-c) (ambient laboratory levels)
Photoperiod	16-hr light, 8-hr dark
Test chamber size	30 mL
Volume of test solution	15 mL/replicate
Renewal of test concentrations	Daily
Age of organisms	Newly hatched neonates less than 24 hours old
No. of neonates per test chamber	1
No. of replicate chambers per concentration	10
No. of neonates per concentration	10
Feeding regime	Fed 0.1 mL each of YCT and algae suspension per test chamber daily
Aeration	None
Dilution water	Dilute mineral water prepared using DI water and 20% Perrier
Effluent concentrations	Control, 6.25%, 12.5%, 25%, 50%, and 100% effluent
Dilution factor	0.5
Test duration	7±1 days, when at least 60% of control females had 3 broods
Effect measured	Survival and reproduction
Test acceptability	80% or greater survival in controls; Average of 15 or more young per surviving female in the control solutions. At least 60% of surviving females in controls should have produced their third brood
Sampling requirement	Samples are collected daily, and used within 36 hrs of the time they are removed from the sampling device
Sample volume required	1 L per day

Reference: EPA-821-R-02-013, Fifth Edition, October 2002.
Source: Amec FW, 2015

Table 3. Summary of Toxicity Test Conditions for the Fathead Minnow, *Pimephales promelas*, Larval Survival and Growth Test. (EPA-821-R-02-013, Test Method 1000.0 [EPA, 2002])

Test type	Static renewal
Temperature	25±1°C (Recommended) Test temperatures must not deviate (maximum-minimum temperature) by more than 3°C during the test (required)
Light quality	Ambient laboratory illumination
Light intensity	10-20 µE/m2/s (50-100 ft-c) (ambient laboratory levels)
Photoperiod	16-hr light, 8-hr dark
Size of test vessel	600 mL
Volume of test solution	250 mL/replicate
Renewal of test concentrations	Daily
Age of organisms	Newly hatched larvae less than 48 hrs old
No. of larvae per test chamber	10
No. of replicate chambers per concentration	4
No. of larvae per concentration	40
Feeding regime	Fed approximately 0.2 mL newly hatched (less than 24-hr old) brine shrimp nauplii two times per day. Larvae are not fed during the final 12-hr of the test.
Cleaned	Siphoned daily, immediately before test solution renewal
Aeration	None (DO concentration did not fall below 40% saturation)
Dilution water	Moderately hard synthetic water prepared using DI water and reagent grade chemicals
Effluent concentrations	Control, 6.25%, 12.5%, 25%, 50%, and 100% effluent
Dilution factor	0.5
Test duration	7 days
End points	Survival and growth (dry weight)
Test acceptability	80% or greater survival in controls; Average dry weight of surviving controls equals or exceeds 0.25 mg
Sampling requirement	A minimum of three composite samples are collected
Sample volume required	2.5 L per day

Reference: EPA-821-R-02-013, Fifth Edition, October 2002.
Source: Amec FW, 2015

2.5 Test Concentrations

2.5.1 Water Flea

The concentrations used for the chronic definitive test were 0% (dilution water control), 6.25%, 12.5%, 25%, 50%, and 100% effluent. Test solutions were prepared by combining effluent sample with dilution water on a volumetric basis. Test vessels used for the chronic tests were 30 mL plastic cups containing 15 mL of test effluent or control water for *C. dubia*. One *C. dubia* was placed in each of the 10 replicate vessels per concentration.

2.5.2 Fathead Minnow

The concentrations used for the chronic definitive test were 0% (dilution water control), 6.25%, 12.5%, 25%, 50%, and 100% effluent. Test solutions were prepared by combining effluent sample with dilution water on a volumetric basis. Test vessels used for the chronic tests were 600 mL beakers containing 250 mL of test effluent or control water for *P. promelas*. The test organisms were randomly distributed in the test vessels. Ten *P. promelas* were placed in each of four replicate vessels per concentration.

2.6 Monitoring of Toxicity Tests

The test was monitored at test initiation and daily thereafter for mortality, temperature, dissolved oxygen, pH, and conductivity. Before test initiation, salinity and pH values were measured and recorded in the sample receipt log for the undiluted test sample.

2.7 Quality Control (Reference Toxicant Tests)

A chronic reference toxicant test using sodium chloride (NaCl) as the reference toxicant was conducted to evaluate the sensitivity of the test organisms for the chronic tests. The test concentrations were 0 (control), 0.125, 0.25, 0.5, 1, 2, and 4 grams (g) NaCl/L for *C. dubia*; and 0 (control), 0.75, 1.5, 3, 6 and 12 g NaCl/L for *P. promelas*. The test conditions for the organisms in the reference toxicant test were the same as for the effluent test.

2.8 Statistical Analysis

For the chronic toxicity and reference toxicant tests, IC25 values and their 95 percent confidence limits were estimated by computer program, Comprehensive Environmental Toxicity Information System, CETIS (Tidepool, 2008).

3.0 Results and Discussion

Chemical and physical data associated with the test sample material can be found in Appendix C. The results of the chronic toxicity tests conducted with *C. dubia* and *P. promelas* are reflected in Tables 4 and 5.

3.1 Results of Chronic Toxicity Test Conducted with Water Flea

The toxicity test results did not indicate chronic toxicity to the water flea for sample concentrations tested below the requirements of the permit, when statistically compared to the laboratory control. For the samples tested April 21 through 28, 2015, the NOEC values for survival and reproduction are both 100% effluent. The results of the control exposures met the test acceptability requirements (USEPA, 2002): (1) ≥ 80% survival; 2) ≥ an average of 15 neonates per surviving female; and (3) ≥ 60% of surviving females produced three broods.

The test solutions were not aerated at any time during the test. Water quality values remained within acceptable limits during the test period. Copies of the relevant laboratory raw data pertaining to the acute tests are provided in Appendix B.

Table 4. Survival and Reproduction Data for *C. dubia* Exposed for Seven Days[a] to Plant Branch Effluent, April 21 through 28, 2015

Test Exposures (% Total Effluent)	Survival of All Organisms per Test Exposure (%)	Reproduction (Mean # of neonates per surviving female)
0, Control[(b)]	90	17.7
6.25	90	17.5
12.5	90	17.8
25	100	17.8
50	90	14.7
100	90	17.7
NOEC (% Effluent)	**100**	**100**

Source: Amec FW, 2015 Prepared by: PSB Checked by: SAM
[(a)] The three brood *Ceriodaphnia dubia* test typically lasts 6 to 8 days.
[(b)] Laboratory Water Control; Diluted Mineral Water Batch #PD2015-8

3.2 Results of Chronic Toxicity Test Conducted with Fathead Minnow

The effluent samples from Plant Branch were determined to not be chronically toxic to *P. promelas* survival and growth (Table 5) based on the results of the chronic toxicity test. The surviving *P. promelas* demonstrated normal activity (normal movement) in effluent solutions throughout the test period. Based on the chronic toxicity test results, the NOEC values for survival and growth are both 100% effluent. The results of the Control exposures met the test acceptability requirements (USEPA, 2002): (1) ≥ 80% survival; (2) average dry weight per surviving organism ≥ 0.2 milligrams.

The test solutions were not aerated at any time during the test. Water quality values remained within acceptable limits during the test period. Copies of the relevant laboratory raw data pertaining to the acute tests are provided in Appendix B.

Table 5. Survival and Growth Data for *P. promelas* Exposed for Seven Days to Plant Branch Effluent, April 21 through 28, 2015

Test Exposures % Total Effluent	Survival of All Organisms per Test Exposure (%)	Growth[a] (mg)
0, Control[b]	92.5	1.06
6.25	100	1.13
12.5	97.5	1.13
25	97.5	1.07
50	97.5	1.16
100	95	0.97
NOEC (% Effluent)	**100**	**100**

Source: Amec FW, 2015 Prepared by: PSB Checked by: SAM
[a] Mean dry weight per original number of fish at test initiation, excluding those that were accidentally killed or missing.
[b] Laboratory Water Control, Moderately Hard Synthetic Freshwater Batch# MHW20150424

3.3 Quality Control

Ceriodaphnia dubia, NaCl Reference Toxicant, RT7DCD20150414, 04/14/2015
Reproduction: 7-day IC25 = 821 mg NaCl/L **(Acceptable)**
7-day IC25 Range of Acceptability = 195 to 1,747 mg NaCl/L

Pimephales promelas, NaCl Reference Toxicant, RT7DPP20150421, 04/21/2015
Growth: 7-day IC25 = 3,480 mg/ NaCl/L **(Acceptable)**
7-day IC25 Range of Acceptability = 1,794 to 4,634 mg NaCl/L

4.0 Conclusion

Amec Foster Wheeler conducted a chronic definitive toxicity test beginning on April 21, 2015 and terminated on April 28, 2015, with a sample of final effluent from Plant Branch. The test was conducted to satisfy the requirements of NPDES permit number GA0026051 (NOEC values greater than or equal to 50% effluent).

The toxicity test results did not indicate chronic toxicity to the water flea or the fathead minnow for sample concentrations tested below the requirements of the permit, when statistically compared to the laboratory control. For the samples tested April 21 through 28, 2015, the NOEC values were 100% effluent for both the water flea and fathead minnow.

5.0 References

Tidepool Scientific Software. 2008. CETIS, Comprehensive Environmental Toxicity Information System. Version 1.7.0 Revision S.

U.S. Environmental Protection Agency. 1979. Methods for Chemical Analysis of Water and Wastes. Environmental Monitory Laboratory, U.S. Environmental Protection Agency, Cincinnati, OH. EPA 600-4-79/020.

U.S. Environmental Protection Agency. 2002. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. Fourth Edition. Office of Water (4303T), U.S. Environmental Protection Agency, Washington, DC. EPA-821-R-02-013.

APPENDIX A

Chain of Custody Records

Biology-Toxicology Laboratory
404 SW 140th Terrace
Newberry, FL 32669
Telephone (352) 332-3318

Revised Feb 2012

SAMPLE CHAIN OF CUSTODY

Facility: PLANT BRANCH

Location/Address (including county): MILLEDGEVILLE, PUTNAM COUNTY, GEORGIA

Permit Number: Outfall Number:

SAMPLE INFORMATION

Sample Identification	Sample Type Grab or Composite?	Start & End Date	Start & End Time	Water Quality Upon Arrival in AMEC Lab: Temp °C	pH	D.O mg/L	
~~ASH POND B DISCHARGE~~							
ASH POND B DISCHARGE	COMPOSITE	4-19-15 4-20-15	1220 1220	1.8	8.1	6.9	
Total Number of Samples:							

PB 4/21/15

SAMPLE INFORMATION

Sampler(s): EVER GUILLEN / [signature]

Sampling Point (Description):

Water Quality Measurements at Facility (optional):

Temp: pH: Diss. Oxygen: Salinity/Cond.: Chlorine (TRC):

Water Quality Measured by: Date: Time:

Observations/Remarks:

CHAIN OF CUSTODY

Relinquished By:	Received By:	Date	Time
[signature]			
	[signature]	4/20/15	1500

SAMPLE ACCEPTANCE POLICY AND SAMPLING INSTRUCTIONS ON REVERSE SIDE

Biology-Toxicology Laboratory
404 SW 140th Terrace
Newberry, FL 32669
Telephone (352) 332-3318

SAMPLE CHAIN OF CUSTODY

Facility: PLANT BRANCH

Location/Address (including county): MILLEDGEVILLE, PUTNAM COUNTY, GEORGIA

Permit Number: Outfall Number:

SAMPLE INFORMATION

Sample Identification	Sample Type Grab or Composite?	Start & End Date	Start & End Time	Water Quality Upon Arrival in AMEC Lab			
				Temp °C	pH	D.O mg/L	
ASHPOND B DISCHARGE	COMPOSITE	4-21-15 11 30	4-22-15 11 30	1.6	7.7	8.3	
Total Number of Samples:							

SAMPLE INFORMATION

Sampler(s): EVER GUILLEN /

Sampling Point (Description):

Water Quality Measurements at Facility (optional):

Temp: pH: Diss. Oxygen: Salinity/Cond.: Chlorine (TRC):

Water Quality Measured by: Date: Time:

Observations/Remarks:

CHAIN OF CUSTODY

Relinquished By:	Received By:	Date	Time
		4/22/15	1330

SAMPLE ACCEPTANCE POLICY AND SAMPLING INSTRUCTIONS ON REVERSE SIDE

Biology-Toxicology Laboratory
404 SW 140th Terrace
Newberry, FL 32669
Telephone (352) 332-3318

SAMPLE CHAIN OF CUSTODY

Facility: PLANT BRANCH

Location/Address (including county): MILLEDGEVILLE, PUTNAM COUNTY, GEORGIA

Permit Number: Outfall Number:

SAMPLE INFORMATION

Sample Identification	Sample Type Grab or Composite?	Start & End Date	Start & End Time	Water Quality Upon Arrival in AMEC Lab: Temp °C	pH	D.O mg/L	____
ASH POND B DISCHARGE	COMPOSITE	4-23-15 4-24-15	1130 1130	1.7	7.3	8.2	
Total Number of Samples:							

SAMPLE INFORMATION

Sampler(s): EVER GUILLEN / [signature]

Sampling Point (Description):

Water Quality Measurements at Facility (optional):

Temp: pH: Diss. Oxygen: Salinity/Cond.: Chlorine (TRC):

Water Quality Measured by: Date: Time:

Observations/Remarks:

CHAIN OF CUSTODY

Relinquished By:	Received By:	Date	Time
[signature]			
	[signature]		

4/25/15

SAMPLE ACCEPTANCE POLICY AND SAMPLING INSTRUCTIONS ON REVERSE SIDE

1300

APPENDIX B

Test Organism Documents

Amec Foster Wheeler
Biology Toxicology Laboratory

***Ceriodaphnia dubia* In-house Culture Source Document**

Brood Board ID No.	Brood Board Date	Age of Test Organisms	Water Type/Temp. (°C)	Food Type
CD20150413	04/21/2015	< 24-hrs	DMW / 24.8	YCT & *Selenastrum*

***Pimephales promelas* Culture Source Document**

Larvae Batch ID No.	Source	Hatch Date	Age of Test Organisms	Water Type/Temp. (°C)	Food Type
2015-23	Hydrosphere	04/20/2015	< 24-hrs	MHW/ 26	*Artemia*

APPENDIX C

Chemical and Physical Data

AMEC Toxicology Laboratory
Newberry, Florida

AMEC QA Form Number: 011A
Revised: April 8, 2014

EFFLUENT/SEDIMENT RECEIPT AND USAGE LOG

Test Material: Effluent Project No.: 6123150089.02

Sponsor: Plant Branch Receipt Date: 4/21/15

Type and Number of Containers: 2 1-gallon containers

Mode of Transport (check one): ___ Mail ___ Hand ___ Courier: ☒FedEx ☐UPS ☐Other: ___

Shipping tracking number: 8781 2691 6162

Preserved on Ice: Y Chain-of-Custody Tape Intact: Y (Composite) or Grab: ___

Information: ___

INITIAL TEST MATERIAL CHARACTERISTICS

Client Sample ID:				
AMEC Unique ID:	W15	APR	PLA	042115
Temperature (°C):	1.8			
Conductivity (uS/cm)/Salinity (ppt):	758			
pH (standard units):	~~7.9~~ 6.9	PB	4/21/15	
Dissolved Oxygen (mg/L):	8.1			
Total Residual Chlorine (mg/L): Zero: 0.00	0.12			
Ammonia (mg/L as N): Zero: 0.00	0.05			
Alkalinity (mg/L of CaCO3):	239.12			
Hardness (mg/L of CaCO3):	303.03			

Sample Used Upon Receipt (Y/N): Y

Storage: Fridge ~~#1~~ ☐2 4°±2°C

Appearance of sample (i.e. turbid, color, etc.) ___ (Optional)

Date/Time Recorded: 4/21/15 1500 Sample Custodian: Pamul Bellard

TEST MATERIAL USAGE

Date	Amount	Purpose	Storage	Initials

Test Material Discarded On: ___ By: ___

Reviewed By: PB Date: 4/23/15

AMEC Toxicology Laboratory
Newberry, Florida

AMEC QA Form Number: 011A
Revised: April 8, 2014

EFFLUENT/SEDIMENT RECEIPT AND USAGE LOG

Test Material: Effluent
Project No.: 6123150089.02
Sponsor: Plant Branch
Receipt Date: 4/23/15
Type and Number of Containers: 2 1-gallon containers
Mode of Transport (check one): ___ Mail ___ Hand ☒ Courier: ☒FedEx ☐UPS ☐Other: ___
Shipping tracking number: 8731 2691 6173
Preserved on Ice: Y
Chain-of-Custody Tape Intact: Y
Composite or Grab: ___
Information: ___

INITIAL TEST MATERIAL CHARACTERISTICS

Client Sample ID:				
AMEC Unique ID:	W15	APR	PLA	042315
Temperature (°C):	1.6			
Conductivity (uS/cm;):/Salinity (ppt):	952			
pH (standard units):	7.7			
Dissolved Oxygen (mg/L):	8.3			
Total Residual Chlorine (mg/L): Zero: 0.00	0.04			
Ammonia (mg/L as N): Zero: 0.00	0.17			
Alkalinity (mg/L of CaCO3):	28.4			
Hardness (mg/L of CaCO3):	307.72			

Sample Used Upon Receipt (Y/N): Y

Storage: Fridge# ☒1 ☐2 4°±2°C

Appearance of sample (i.e. turbid, color, etc.) ___ (Optional)

Date/Time Recorded: 4/23/15
Sample Custodian: [signature]

TEST MATERIAL USAGE

Date	Amount	Purpose	Storage	Initials

Test Material Discarded On: ___
Reviewed By: PB
Date: 5/1/15
By: ___

AMEC Toxicology Laboratory
Newberry, Florida

AMEC QA Form Number: 011A
Revised: April 8, 2014

EFFLUENT/SEDIMENT RECEIPT AND USAGE LOG

Test Material: Effluent Project No.: 6123150089.02

Sponsor: Plant ~~City~~ Branch Receipt Date: 4/25/15

Type and Number of Containers: 3, 1 gallon jugs

Mode of Transport (check one): ___ Mail ___ Hand ___ Courier: ☑FedEx ☐UPS ☐Other: ___

Shipping tracking number: 8731269 1684

Preserved on Ice: ✓ Chain-of-Custody Tape Intact: ✓ Composite or Grab: ___

Information: ___

INITIAL TEST MATERIAL CHARACTERISTICS

Client Sample ID:				
AMEC Unique ID:	WIS-	APR-	PLA-	042515
Temperature (°C):	1.7			
Conductivity (uS/cm;):/Salinity (ppt):	728			
pH (standard units):	7.3			
Dissolved Oxygen (mg/L):	8.2			
Total Residual Chlorine (mg/L): Zero: 0.00	0.09			
Ammonia (mg/L as N): Zero: 0.00	0.12			
Alkalinity (mg/L of CaCO3):	44.1			
Hardness (mg/L of CaCO3):	288.12			

Sample Used Upon Receipt (Y/N): Y

Storage: Fridge# ☑1 ☐2 4°±2°C

Appearance of sample (i.e. turbid, color, etc.) clear (Optional)

Date/Time Recorded: 4/25/15 1300 Sample Custodian: [signature]

TEST MATERIAL USAGE

Date	Amount	Purpose	Storage	Initials

Test Material Discarded On: ___ By: ___

Reviewed By: PB Date: 5/1/15

APPENDIX D

Effluent and Reference Toxicant Test Data Sheets

Project Number: 6123150089.02 Client: Plant Branch Test: 7 day Chronic *P. promelas* and *C. dubia*

DAILY LOG

4/21/15 Received and warmed sample, made dilutions, loaded test, fed orgs, WQs PB

4/22 warmed sample, made dilutions, renewed test, monitored orgs & WQs, fed JH & KK

4/23 received & warmed/checked in sample, made dilutions, renewed test, monitored orgs & WQs, fed JH & KK

4/24 warmed sample/ made dilutions/ renewed test/ Fed AM+PM/ WQs KK

4/25 recieved sample/ warmed/ Made dilutions/ renewed Tests/ Fed AM+PM/ WQs KK/JH

4/26 Warmed sample/ Made Dilution/ renewed test/ Fed AM+PM /WQs KK

4/27 warmed sample/ made dilutions/ renewed tests/ Fed AM+PM/ WQs KK

4/28/15 took down test, WQs AN

Water Flea
Effluent Test Data Sheets

SUBJECT: CERIODAPHNIA CHRONIC TEST - COVER

Client: Plant Branch

Project Number: 6123150089.02

Test Substance: WWTP Effluent

Test Species: *Ceriodaphnia dubia*

ANIMAL HISTORY

LOT NUMBER: CD20150413

Date Neonates Collected: 4/21/15

See Page NA of Cladoceran Neonate History Log

Age of Neonates (hours): <24 hours

Condition of Neonates: Good

TEST CONDITIONS

Test Protocol: EPA-821-R-02-013 1002.0

Dilution Water: 20%Perrier/80%MilliQ

Dilution Water Batch Number: PD2015-8

Type Lighting: Fluorescent

Photoperiod: 16 light/8 dark

Test Container: 30 milliliter(mL) Plastic Cup

Solution Volume: 15 mL

Replicates per Concentration: 10

Organisms per rep: 1

Test Temperature: 25 ± 1 °C

WaterBath/ Incubator

TEST SOLUTION PREPARATION

TEST CONCENTRATION % g/L	Control	6.25	12.5	25	50	100	
Volume of Effluent / Stock Added (ml)	200	12.5	25	50	100	200	
Volume of dilution Water Added (ml)	---	187.5	175	150	100	0	

TEST VALIDITY CRITERIA:

Percent of Surviving Female Adults with 3 Broods in Control:

Percent Survival of Control Adults: 90%

Mean Number of Neonates per Adult Female in Control: 17.7

TEST SUMMARY

Test Concentration (%)	Number of Neonates	Number of Broods	Adult C. dubia No. Alive	Adult C. dubia No. Dead	Number of Males	Neonates Per Adult	Brood per Adult
Control	177		9	1		17.7	
6.25 PB 5/6/15	~~1705~~		9	1		17.5	
12.5	178		9	1		17.8	
25	178		10	0		17.8	
50 PB 5/6/15	~~1487~~		9	1		~~14.87~~	
100	177		9	1		17.7	

PB 5/6/15

Additional Comments:

TEST DATA RECORDED BY PB DATE: 4/30/15

TEST SUMMARY RECORDED BY PB DATE: 4/30/15

Amec Foster Wheeler
Newberry, FL

QA Form: 106G
Revised: March 2015

DAILY FEEDING LOG

Client: Plant Branch
Test Substance: WWTP Effluent

Project Number: 6123150089.02
TEST SPECIES: *C.dubia*

TEST DAY	DATE	TIME	INITIALS	FOOD TYPE	QUANTITY	COMMENTS
In Holding Day 0	4/21/15	0900	AN	SC	0.1 ml	Feed in holding
				YTC	0.1 ml	
After Loading Day 0	4/21/15	1500	PB	SC	0.1 ml	Feed after loading
				YTC	0.1 ml	
Day1	4/22/15	1115	KK	SC	0.1 ml	Feed after daily renewal
				YTC	0.1 ml	
Day2	4/23/15	1620	[illegible]	SC	0.1 ml	Feed after daily renewal
				YTC	0.1 ml	
Day3	4/24/15	1200	KK	SC	0.1 ml	Feed after daily renewal
				YTC	0.1 ml	
Day4	4/25/15	1445	KK	SC	0.1 ml	Feed after daily renewal
				YTC	0.1 ml	
Day5	4/26/15	1230	KK	SC	0.1 ml	Feed after daily renewal
				YTC	0.1 ml	
Day6	4/27/15	1240	KK	SC	0.1 ml	Feed after daily renewal
				YTC	0.1 ml	

BS = Brine Shrimp nauplii YTC = Yeast/Trout Chow/Cereal Leaves
Algae = Green Algae (*Selenastrum capricornutum*)

SUBJECT: DUBIA CHRONIC TEST - WATER QUALITY

Client: Plant Branch — **Project Number: 6123150089.02**

Test Substance: WWTP Effluent — **Test Species: Ceriodaphnia dubia**

Test Conc %	Parameter	Day 0	Day 1 Old	Day 1 New	Day 2 Old	Day 2 New	Day 3 Old	Day 3 New	Day 4 Old	Day 4 New	Day 5 Old	Day 5 New	Day 6 Old	Day 6 New	Day 7
CTRL (0)	Temp (°C)	25.3	25.4		25.0		24.8		24.4		25.1		24.0		25.7
	pH (su)	8.1	7.2		8.1		7.3		8.1		7.5		7.5		7.3
	DO (mg/L)	7.9	7.4	7.6	7.6	8.2	7.8	7.7	7.1	7.6	7.4	8.0	7.7	7.7	6.6
	Alkalinity (mg of CaCO3)	44													
	Hardness (mg of CaCO3)	78													
	Conductivity (µmhos/cm)	375													
6.25	Temp (°C)	25.6	25.0		25.1		24.8		24.3		25.4		24.0		25.6
	pH (su)	8.0	7.3		8.1		7.6		8.0		7.7		7.5		7.4
	DO (mg/L)	8.0	7.4	7.6	7.6	8.2	7.8	7.7	7.1	7.6	7.5	7.7	7.5	7.7	6.7
12.5	Temp (°C)	25.6	24.8		25.1		24.7		24.2		24.9		24.0		25.3
	pH (su)	8.0	7.3		8.1		7.6		8.0		7.8		7.6		7.4
	DO (mg/L)	7.8	7.5	7.6	7.5	8.2	7.8	7.8	7.1	7.6	7.8	7.7	7.5	7.8	6.7
25	Temp (°C)	25.6	24.7		25.0		24.7		24.3		24.8		24.0		25.2
	pH (su)	8.0	7.3		8.1		7.6		7.9		7.8		7.6		7.4
	DO (mg/L)	8.0	7.3	7.6	7.5	8.1	7.9	7.8	7.2	7.6	7.8	7.7	7.4	7.8	6.8
50	Temp (°C)	25.5	24.8		25.0		24.5		24.3		25.0		23.8		25.3
	pH (su)	7.9	7.3		8.1		7.5		7.8		7.6		7.6		7.3
	DO (mg/L)	8.1	7.4	7.7	7.5	8.1	7.9	7.9	7.1	7.8	7.5	7.9	7.6	8.0	6.8
100	Temp (°C)	25.6	24.8		25.1		24.5		24.6		25.1		23.7		25.4
	pH (su)	7.8	7.2	6.8	8.0	7.9	7.4	7.5	7.8	7.9	7.5	8.0	7.5	7.5	7.3
	DO (mg/L)	8.1	7.4	7.7	7.5	8.1	7.9	7.9	7.2	7.8	7.7	8.0	7.5	8.1	7.0
	Alkalinity (mg of CaCO3)	239													
	Hardness (mg of CaCO3)	303													
	Conductivity (µmhos/cm)	758													
WQ in New Sample															
100% (new sample)	Alkalinity (mg of CaCO3)	239				29				44					
	Hardness (mg of CaCO3)	303				308				288					
	Conductivity (µmhos/cm)	758				952				728					
Thermocouple		FS16	FS16		FS16		FS16		FS16		FS16		FS16		FS16
pH Meter		pH3	pH3		pH3		pH3		pH3		pH3		pH3		pH3
DO Meter		DO6	DO6		DO6		DO6		DO6		DO6		DO6		DO6
Conductivity Meter		SCT5			SCT5				SCT5						
INITIALS:		PB	PB		[illegible]		KL		[illegible]		KL		SS		[illegible]
DATE:		4/21/15	4/22/15		4/23/15		4/24/15		4/25/15		4/26/15		4/27/15		4/28/15
TIME:		1100	1400		1650		1200		1500		1200		1315		1700

Temp = Temperature DO = Dissolved Oxygen su = standard units Conductivity reported as umhos/cm

KL
4/26/15

Amec Foster Wheeler
Newberry, Florida

Revised: March 2015

SUBJECT: CERIODAPHNIA CHRONIC TEST - SURVIVAL

Client: Plant Branch
Test Substance: WWTP Effluent
Project Number: 6123150089.02

Test Species: Ceriodaphnia dubia

Test Conc %	Day	A AD	A N	B AD	B N	C AD	C N	D AD	D N	E AD	E N	F AD	F N	G AD	G N	H AD	H N	I AD	I N	J AD	J N
Control 0	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	1	1	2	1	2	1	1	1	2	1	0
	4	1	2	1	0	1	3	1	2	1	0	1	1	1	2	1	0	1	0	1	0
	5	1	7	1	7	1	5	1	5	1	6	1	5	1	0	1	5	1	7	1D	
	6	1	4	1	2	1	1	1	5	1	5	1	2	1	10	1	9	1	8		
	7	1	2	1	8	1	11	1	8	1	8	1	10	1	15	1	21	1	11	X	0
			15		17		20		20		20		20		29		15		21	X	0
6.25	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	0	1	3	1	2	1	4	1	2	1	0
	4	1	4	1	0	1	3	1	4	1	0	1	0	1	0	1	1	1	1	1	1
	5	1	4	1	5	1	0	1	6	1	7	1	7	1D		1	5	1	1	1	0
	6	1	0	1	5	1	5	1	8	1	9	1	6			1	8	1	7	1	7
	7	1	12	1	1	1	6	1	1	1	9	1	10			1	14	1	20	1	11
			20		~~17~~ 11		14		19		25		16	X	2		18		~~30~~	31	19
12.5	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1D	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	0	1	0			1	0	1	3		10
	4	1	3	1	1	1	2	1	3	1	0	1	0			1	0	1	0	1	3
	5	1	3	1	4	1	4	1	2	1	1	1	1			1	4	1	2	1	1
	6	1	0	1	4	1	6	1	7	1	8	1	10			1	9	1	8	1	5
	7	1	11	1	2	1	2	1	11	1	7	1	17			1	14	1	9	1	10
			17		11		15		23		16		28	X	0		27		22		19

TEST DAY	0	1	2	3	4	5	6	7		
INITIALS	PB	KK	[illegible]	KK	KK	KK	KK	AN		
DATE	4/21/15	4/22/15	4/23/15	4/24/15	4/25/15	4/26/15	4/27/15	4/28/15		
TIME	1450	1100	1605	1200	1430	1230	1230	1145		

PB 5/6/15

A = Alive D = Dead N = Neonates (number of neonates recorded for day observed; not cumulative)

MACTEC, Inc.
Newberry, Florida

QA Form Number: 054
Revised: March 2001

SUBJECT: CERIODAPHNIA CHRONIC TEST - SURVIVAL

Client: Plant Branch
Test Substance: WWTP Effluent
Project Number: 6123150089.02

Test Species: Ceriodaphnia dubia

Test Conc	Day	A AD	A N	B AD	B N	C AD	C N	D AD	D N	E AD	E N	F AD	F N	G AD	G N	H AD	H N	I AD	I N	J AD	J N	
25	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	
	3	1	0	1	0	1	0	1	0	1	3	1	0	1	1	1	1	1	0	1	0	
	4	1	1	1	0	1	5	1	5	1	0	1	2	1	5	1	0	1	0	1	0	
	5	1	4	1	4	1	5	1	7	1	8	1	0	1	0	1	4	1	4	1	0	
	6	1	5	1	4	1	5	1	4	1	7	1	3	1	4	1	6	1	7	1	10	
	7	1	2	1	2	1	1	1	0	1	12	1	15	1	13	1	7	1	10	1	14	AW 4/28/15
			12		10		16		16		18		20		23		18		21		24	
50	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	
	3	1	2	1	0	1	0	1	0	1	2	1	1	1	1	1	3	1	2	1	0	
	4	1	0	1	0	1	3	1	2	1	1	1	5	1	2	1	0	1	0	1	0	
	5	1	2	1	3	1	6	1	5	1	2	ID	|	1	0	1	3	1	5	1	4	
	6	1	8	1	0	1	5	1	6	1	6	|	|	1	8	1	10	1	10	1	0	
	7	1	3	1	14	1	12	1	0	1	8	|	|	1	3	1	4	1	20	1	2	AW 4/28/15
			15		17		20		13		19	X	6		14		20		17		6	
100	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	
	3	1	0	1	0	1	0	1	0	1	1	1	3	1	4	1	2	1	0	1	0	
	4	1	1	1	3	1	6	1	0	1	0	1	0	1	0	1	0	1	1	1	3	
	5	1	8	1	5	1	6	1	3	1	5	1	4	1	6	ID	|	1	6	1	3	
	6	1	2	1	6	1	7	1	0	1	6	1	5	1	5	|	|	1	4	1	2	
	7	1	9	1	2	1	3	1	13	1	3	1	18	1	9	|	|	1	0	1	10	
			20		19		22		16		15		30		24	X	2		11		18	
TEST DAY		0		1		2		3		4		5		6		7						
INITIALS				KK		AA		KK		KK		KK		KK		AN						
DATE				4/22/15		4/23		4/24/15		4/25/15		4/26/15		4/27/15		4/28/15						
TIME				1100		1600		1200		1430		1230		1230		1145						

A = Alive D = Dead N = Neonates (number of neonates recorded for day observed; not cumulative)

CETIS Summary Report

Report Date: 08 May-15 15:17 (p 1 of 1)
Test Code: 20-7586-3118/W15-APR-PLA-CD

Cladoceran 7-d Survival and Reproduction Test — **AMEC Biology-Toxicology LAB**

Batch ID:	10-4421-8756	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	
Start Date:	21 Apr-15	**Protocol:**	EPA/600/4-91/002 (1994)	**Diluent:**	Dilute Mineral Water
Ending Date:	28 Apr-15	**Species:**	Ceriodaphnia dubia	**Brine:**	Modified GP2
Duration:	7d 0h	**Source:**	In-House Culture	**Age:**	<24h

Sample ID:	06-6502-1829	**Code:**	27A36D85	**Client:**	Plant
Sample Date:	20 Apr-15	**Material:**	WWTP	**Project:**	6123150089.02
Receive Date:	21 Apr-15	**Source:**	Plant Branch		
Sample Age:	24h	**Station:**			

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
13-2497-7485	7d Survival Rate	100	>100	N/A	N/A	1	Fisher Exact/Bonferroni-Holm Test
00-5584-7547	Reproduction	100	>100	N/A	40.0%	1	Steel Many-One Rank Test

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
13-2497-7485	7d Survival Rate	Control Resp	0.9	0.8 - NL	Yes	Result Within Limits
00-5584-7547	Reproduction	Control Resp	17.7	15 - NL	Yes	Result Within Limits

7d Survival Rate Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Upstream Contr	10	0.9	0.782	1	0	1	0.0577	0.316	35.1%	0.0%
6.25		10	0.9	0.782	1	0	1	0.0577	0.316	35.1%	0.0%
12.5		10	0.9	0.782	1	0	1	0.0577	0.316	35.1%	0.0%
25		10	1	1	1	1	1	0	0	0.0%	-11.1%
50		10	0.9	0.782	1	0	1	0.0577	0.316	35.1%	0.0%
100		10	0.9	0.782	1	0	1	0.0577	0.316	35.1%	0.0%

Reproduction Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Upstream Contr	10	17.7	15	20.4	0	29	1.34	7.36	41.6%	0.0%
6.25		10	17.5	14.6	20.4	2	31	1.42	7.79	44.5%	1.13%
12.5		10	17.8	14.7	20.9	0	28	1.5	8.23	46.2%	-0.57%
25		10	17.8	16.1	19.5	10	24	0.82	4.49	25.2%	-0.57%
50		10	14.7	12.8	16.6	6	20	0.943	5.17	35.1%	16.9%
100		10	17.7	14.9	20.5	2	30	1.39	7.59	42.9%	0.0%

7d Survival Rate Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Upstream Contr	1	1	1	1	1	1	1	1	1	0
6.25		1	1	1	1	1	1	0	1	1	1
12.5		1	1	1	1	1	1	0	1	1	1
25		1	1	1	1	1	1	1	1	1	1
50		1	1	1	1	1	0	1	1	1	1
100		1	1	1	1	1	1	1	0	1	1

Reproduction Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Upstream Contr	15	17	20	20	20	20	29	15	21	0
6.25		20	11	14	19	25	16	2	18	31	19
12.5		17	11	15	23	16	28	0	27	22	19
25		12	10	16	16	18	20	23	18	21	24
50		15	17	20	13	19	6	14	20	17	6
100		20	19	22	16	15	30	24	2	11	18

Analyst: PB QA: SM

Fathead Minnow
Effluent Test Data Sheets

SUBJECT: FATHEAD MINNOW CHRONIC TEST - COVER

Client: Plant Branch
Test Substance: WWTP Effluent

Project Number: 6123150089.02
Test Species: Pimephales promelas

ANIMAL HISTORY

LOT NUMBER: 2015-23

Date of Hatch: 4/20/15

See Page No.: 19 of Fish Holding Log for Larvae History

Source of Larvae: hydrosphen

See Page No.: 19 of Animal Receipt Log

Condition of Larvae: good

TEST CONDITIONS

Test Protocol: EPA-821-R-02-013 Method 1000.0

Type Lighting: Fluorescent
Dilution Water: synthetic mod-hard water
Test Container: 600 mL beaker
Replicates per Concentration: 4
Test Temperature: 25 ± 1 °C
Dilution Water Batch Number: MHW20150424

Photoperiod: 16 light/8 dark
Solution Volume: 250 mL
Organisms per rep: 10
Feeding: Daily (see Daily Feeding Log)
WaterBath /Incubator (Circle One)

For Effluent Sample Information, See Page Number 192 of Effluent Receipt Log

TEST CONCENTRATION %	Control	6.25	12.5	25	50	100	
Volume of Dilution Water (ml)	1000	937.5	875	750	500	0	
Volume of Effluent / Stock (ml)	0	62.5	125	250	500	1000	

Additional Comments:

TEST DATA RECORDED BY: PB

DATE: 5/1/15

Amec Foster Wheeler
Newberry, FL

QA Form: 106G
Revised: March 2015

DAILY FEEDING LOG

Client: Plant Branch
Test Substance: WWTP Effluent

Project Number: 6123150089.02
TEST SPECIES: P. promelas

TEST DAY	DATE	TIME	INITIALS	FOOD TYPE	QUANTITY	COMMENTS
In Holding	4/21/15	1000 1700	AW PB	BS	2.0 ml	In Holding Vessels
Day1	4/22/15	0800 1130	[illegible] [illegible]	BS	0.2 ml	2 hours prior to renewal 6 hours after initial feeding
Day2	4/23/15	0800 1700	PB [illegible]	BS	0.2 ml	2 hours prior to renewal 6 hours after initial feeding
Day3	4/24/15	0800 1450	DB SES	BS	0.2 ml	2 hours prior to renewal 6 hours after initial feeding
Day4	4/25/15	1130 1500	JH KK	BS	0.2 ml	2 hours prior to renewal 6 hours after initial feeding
Day5	4/26/15	1100 1700	KK PB	BS	0.2 ml	2 hours prior to renewal 6 hours after initial feeding
Day 6	4/27/15	0800 1700	PB PB	BS	0.2 ml	2 hours prior to renewal 6 hours after initial feeding

BS = Brine Shrimp nauplii YTC = Yeast/Trout Chow/Cereal Leaves
Algae = Green Algae (*Selenastrum capricornutum*)

Amec Foster Wheeler
Newberry, Florida

QA Form Number: 055
Revised: March 2015

SUBJECT: PROMELAS CHRONIC TEST - WATER QUALITY

Client: Plant Branch

Project Number: 6123150089.02

Test Substance: WWTP Effluent

Test Species: Pimephales promelas

Test Conc %	Parameter	Day 0	Day 1 Old	Day 1 New	Day 2 Old	Day 2 New	Day 3 Old	Day 3 New	Day 4 Old	Day 4 New	Day 5 Old	Day 5 New	Day 6 Old	Day 6 New	Day 7
CTRL (0)	Temp (°C)	25.3	25.0		25.0		25.6		25.0		25.3		24.3		25.2
	pH (su)	8.2	7.0		8.4		7.3		7.9		7.4		7.0		7.5
	DO (mg/L)	7.8	6.7	7.6	6.1	7.7	6.1	7.6	5.7	7.5	5.4	7.6	6.0	7.6	5.7
	Alkalinity (mg of CaCO3)	41													
	Hardness (mg of CaCO3)	69													
	Conductivity (µmhos/cm)	535													
6.25	Temp (°C)	25.7	24.6		25.0		25.7		25.2		25.0		24.0		25.3
	pH (su)	8.2	7.1		8.4		7.3		7.8		7.3		7.1		7.3
	DO (mg/L)	7.6	6.6	7.8	6.1	6.4	6.1	7.7	5.8	7.5	5.4	7.7	6.0	7.7	5.8
12.5	Temp (°C)	25.8	24.6		25.0		25.8		25.1		25.0		23.9		25.0
	pH (su)	8.2	7.2		8.3		7.2		7.7		7.3		7.0		7.2
	DO (mg/L)	7.6	6.6	7.8	6.1	7.7	6.0	7.7	5.7	7.6	5.5	7.7	5.5	7.7	5.2
25	Temp (°C)	25.6	24.6		25.0		25.7		25.1		24.9		23.8		25.0
	pH (su)	8.2	7.1		8.2		7.1		7.6		7.2		7.0		7.1
	DO (mg/L)	7.8	6.7	7.8	6.3	7.7	6.0	7.8	5.5	7.6	5.4	7.7	5.3	7.7	3.7
50	Temp (°C)	25.6	24.6		25.1		25.7		25.1		24.3		23.8		25.0
	pH (su)	8.1	7.0		8.1		7.0		7.5		7.1		7.0		7.1
	DO (mg/L)	7.9	6.7	7.8	6.4	7.7	6.1	7.8	5.6	7.7	5.5	7.7	6.0	7.9	5.1
100	Temp (°C)	25.5	24.6		25.2		25.3		25.2		24.8		23.8		25.1
	pH (su)	8.0	7.0	7.0	7.9	8.0	6.9	7.3	7.4	7.6	7.0	7.6	6.8	7.4	6.9
	DO (mg/L)	8.3	6.7	8.0	6.2	7.8	6.0	7.9	5.5	7.7	5.4	8.2	5.3	8.3	4.2
	Alkalinity (mg of CaCO3)	239													
	Hardness (mg of CaCO3)	303													
	Conductivity (µmhos/cm)	758													

WQ in New Sample

100% (new sample)	Alkalinity (mg of CaCO3)	239				29				44					
	Hardness (mg of CaCO3)	303				308				288					
	Conductivity (µmhos/cm)	708				952				728					

Thermocouple	FS16	FS16	FS16	FS16	FS16	FS16	FS16	FS15
pH Meter	pH3	pH3	pH3	pH3	pH3	pH3	pH3	pH3
DO Meter	DO6	DO6	DO6	DO6	DO6	DO6	DO6	DO6
Conductivity Meter	SCT5		SCT5		SCT5			
INITIALS:	PB	PB	[illegible]	KK	[illegible]	KK	SS	[illegible]
DATE:	4/21/15	4/22/15	4/23/15	4/24/15	4/25/15	4/26/15	4/27/15	4/28/15
TIME:	1600	1320	1645	1200	1500	1200	1300	1700

Temp = Temperature DO = Dissolved Oxygen su = standard units Conductivity reported as umhos cm

AMEC
Newberry, FL

QA Form Number 105C
August 2008

SHORT-TERM CHRONIC TOXICITY TEST

Organism Exposed: *P. promelas*

Client: Plant Branch

Project Number: 6123150089.02

Test Substance: WWTP

		Test Day 0	Date 4/21/15	Test Day 1	Date 4/22	Test Day 2	Date 4/23	Test Day 3	Date 4/24	Test Day 4	Date 4/25	Test Day 5	Date 4/26	Test Day 6	Date 4/27	Test Day 7	Date 4/28	Weight of Oven-Dried Pan (g) (A) 4/23/15	Dry Weight of Pan and Organisms (g) (B) 4/29/15
Treat-ment, unit: _%_	Replicate	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.		
CTRL	A	10	loaded	10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1133	1.1251
	B			10	N	10	N	10	N	10	N	10	N	9	ID	9	N	1.1146	1.1261
	C			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1084	1.1188
	D			10	N	10	N	10	N	10	N	10	N	10	N	8	ID	1.1071	1.1159
	E																		
	F																		
6.25	A			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1081	1.1185
	B			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1269	1.1391
	C			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1227	1.1336
	D			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1112	1.1228
	E																		
	F																		
12.5	A			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1161	1.1275
	B			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1072	1.1197
	C			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1140	1.1254
	D			10	N	10	N	10	N	9	ID	9	N	9	N	9	N	1.1108	1.1205
	E																		
	F																		
25	A			10	N	10	N	10	N	10	ID	9	N	9	N	9	N	1.0953	1.1066
	B			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1138	1.1241
	C			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1168	1.1267
	D			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.0769	1.0883
	E																		
	F																		
Date recorded by:		Initials PB	Time 1600	Initials [illegible]	Time 1100	Initials HC	Time 1500	Initials KK	Time 1130	Initials KK	Time 1430	Initials KK	Time 1200	Initials KK	Time 1210	Initials AN	Time 1052		

N = Normal Leth = Lethargic Err = Swimming Erratically A = Alive NF = Not Found D = Dead Obs.= Observation

Comments:

KK
4/25/15

AMEC
Newberry, FL

QA Form Number 105C
August 2008

SHORT-TERM CHRONIC TOXICITY TEST

Organism Exposed: *P. promelas*

Client: Plant Branch | Project Number: 6123150089.02 | Test Substance: WWTP

		Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Weight of Oven-Dried Pan (g) (A)	Dry Weight of Pan and Organisms (g) (B)
		0	4/21/15	1	4/22/15	2	4/23/15	3	4/24/15	4	4/25/15	5	4/26/15	6	4/27/15	7	4/28/15	4/23/15	4/29/15
Treat-ment, unit: __%__	Replicate	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.		
50	A	10	loading	10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.0966	1.1075
	B			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.0899	1.1028
	C			10	N	10	N	10	N	10	N	10	N	10	N	9	D	1.1246	1.1351
	D			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.0999	1.1121
	E																		
	F																		
100	A			10	N	10	N	10	N	10	N	9	D	9	N	9	N	1.1073	1.1162
	B			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1146	1.1242
	C			10	N	10	N	10	N	9	D	9	N	9	N	9	N	1.1064	1.1165
	D			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1052	1.1154
	E																		
	F																		
Date recorded by:		Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time		
		PB	1600	JH	1100	HC	1500	KK	1130	KK	1430	KK	1200	KK	1215	AN	1052		

N = Normal Leth = Lethargic Err = Swimming Erratically A = Alive NF = Not Found D = Dead

Comments:

CETIS Summary Report

Report Date: 30 Apr-15 12:44 (p 1 of 1)
Test Code: 04-5986-3676/W15-APR-PLA-PP

Fathead Minnow 7-d Larval Survival and Growth Test — **AMEC Biology-Toxicology LAB**

Batch ID:	03-3094-7149	**Test Type:**	Growth-Survival (7d)	**Analyst:**	-
Start Date:	21 Apr-15	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Mod-Hard Synthetic Water
Ending Date:	28 Apr-15	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Duration:	7d 0h	**Source:**	Hydrosphere	**Age:**	<24h

Sample ID:	06-6502-1829	**Code:**	27A36D85	**Client:**	Plant
Sample Date:	20 Apr-15	**Material:**	WWTP	**Project:**	6123150089.02
Receive Date:	21 Apr-15	**Source:**	Plant Branch		
Sample Age:	24h	**Station:**			

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
17-4507-0967	7d Survival Rate	100	>100	N/A	10.8%	1	Dunnett's Multiple Comparison Test
09-0444-6146	Mean Dry Biomass-mg	100	>100	N/A	16.0%	1	Dunnett's Multiple Comparison Test

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
17-4507-0967	7d Survival Rate	Control Resp	0.925	0.8 - NL	Yes	Result Within Limits
09-0444-6146	Mean Dry Biomass-mg	Control Resp	1.06	0.25 - NL	Yes	Result Within Limits
09-0444-6146	Mean Dry Biomass-mg	PMSD	0.16	0.12 - 0.3	Yes	Result Within Limits

7d Survival Rate Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	4	0.925	0.889	0.961	0.8	1	0.0175	0.0957	10.4%	0.0%
6.25		4	1	1	1	1	1	0	0	0.0%	-8.11%
12.5		4	0.975	0.956	0.994	0.9	1	0.00913	0.05	5.13%	-5.41%
25		4	0.975	0.956	0.994	0.9	1	0.00913	0.05	5.13%	-5.41%
50		4	0.975	0.956	0.994	0.9	1	0.00913	0.05	5.13%	-5.41%
100		4	0.95	0.928	0.972	0.9	1	0.0105	0.0577	6.08%	-2.7%

Mean Dry Biomass-mg Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	4	1.06	1.01	1.11	0.88	1.18	0.0248	0.136	12.8%	0.0%
6.25		4	1.13	1.1	1.16	1.04	1.22	0.0144	0.0789	7.0%	-6.12%
12.5		4	1.13	1.08	1.17	0.97	1.25	0.0211	0.116	10.3%	-5.88%
25		4	1.07	1.04	1.1	0.99	1.14	0.0135	0.0741	6.91%	-0.94%
50		4	1.16	1.12	1.2	1.05	1.29	0.0204	0.112	9.61%	-9.41%
100		4	0.97	0.948	0.992	0.89	1.02	0.0109	0.0594	6.13%	8.71%

7d Survival Rate Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	0.9	1	0.8
6.25		1	1	1	1
12.5		1	1	1	0.9
25		0.9	1	1	1
50		1	1	0.9	1
100		0.9	1	0.9	1

Mean Dry Biomass-mg Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1.18	1.15	1.04	0.88
6.25		1.04	1.22	1.09	1.16
12.5		1.14	1.25	1.14	0.97
25		1.13	1.03	0.99	1.14
50		1.09	1.29	1.05	1.22
100		0.89	0.96	1.01	1.02

Water Flea
Reference Toxicant Test Data Sheets

Amec Foster Whe
Newberry, Florida

Revised: March 2015

SUBJECT: CERIODAPHNIA CHRONIC TEST - COVER

Sponsor: REFERENCE TOXICANT TEST

Test Substance: NaCL

Test Species: *Ceriodaphnia dubia*

ANIMAL HISTORY

LOT NUMBER: CD20150406

See Page NA of Cladoceran Neonate History Log

Date Neonates Collected: 4/14/15

Age of Neonates (hours): <24 hours

Condition of Neonates: good

TEST CONDITIONS

Test Protocol: EPA-821-R-02-013 1002.0

Dilution Water: 20%Perrier/80%MilliQ

Dilution Water Batch Number: PD2015-7

Type Lighting: Fluorescent

Photoperiod: 16 light/8 dark

Test Container: 30 mL Plastic Beaker

Solution Volume: 15 mL

Replicates per Concentration: 10

Organisms per rep: 1

Test Temperature: 25 ± 1 °C

WaterBath / Incubator (circle one)

TEST SOLUTION PREPARATION 10 g NaCl /L of dilution water Reftox Batch #

TEST CONCENTRATION % g/L	Control	0.125	0.25	0.50	1	2	4
Volume of dilution Water Added (ml)	1400.00	1382.50	1365.00	1330.00	1260.00	1120.00	420.00
Volume of Effluent / Stock Added (ml)	---	17.50	35.00	70.00	140.00	280.00	280.00

TEST VALIDITY CRITERIA

Percent of Surviving Female Adults with 3 Broods in Control:

Percent Survival of Control Adults: 100 %

Mean Number of Neonates per Adult Female in Control: 23.1

TEST SUMMARY

Test Concentration (g/L)	Number of Neonates	Number of Broods	Adult C. dubia No. Alive	Adult C. dubia No. Dead	Number of Males	Neonates Per Adult	Brood per Adult
CONTROL	231		10	0		23.1	
0.125	228		9	1		22.8	
0.25	237		8	2		23.7	
0.5	233		10	0		23.3	
1	146		8	2		14.6	
2	39		8	2		3.9	
4	0		0	0		0	

Additional Comments:

TEST DATA RECORDED BY PB DATE: 4/23/15

TEST SUMMARY RECORDED BY PB DATE: 4/23/15

SUBJECT:REFERENCE TOXICANT TEST - WATER QUALITY

REFERENCE TOXICANT TEST

Test Substance: NaCl

Test Species: Ceriodaphnia dubia

Test Conc %	Parameter	Day 0	Day 1 Old	Day 1 New	Day 2 Old	Day 2 New	Day 3 Old	Day 3 New	Day 4 Old	Day 4 New	Day 5 Old	Day 5 New	Day 6 Old	Day 6 New	Day 7
CTRL (0)	Temp (°C)	24.9	25.0		24.9		25.2		25.2		25.1		24.9		25.5
	pH (su)	8.3	8.2		7.6		8.1		7.8		7.8		7.8		7.3
	DO (mg/L)	7.8	7.8	8.4	7.6	7.6	7.7	7.7	7.5	7.8	7.4	7.5	7.5	7.6	7.4
	Alkalinity	60													
	Hardness	66													
	Conductivity	247													
0.125	Temp (°C)	25.0	24.8		25.0		25.0		25.4		25.2		25.0		25.1
	pH (su)	8.0	7.8		7.6		7.9		7.8		7.8		7.8		7.2
	DO (mg/L)	7.8	7.7	8.1	7.7	7.7	7.7	7.7	7.6	7.7	7.4	7.5	7.6	7.6	7.3
0.25	Temp (°C)	25.5	24.6		24.9		25.0		25.4		25.3		25.0		24.8
	pH (su)	8.0	7.7		7.6		7.9		7.7		7.8		7.8		7.3
	DO (mg/L)	7.7	7.8	8.1	7.7	7.7	7.8	7.7	7.7	7.6	7.5	7.5	7.5	7.6	7.5
0.5	Temp (°C)	25.6	24.6		24.9		24.9		25.5		25.4		25.0		24.8
	pH (su)	7.9	7.7		7.7		7.9		7.7		7.7		7.7		7.3
	DO (mg/L)	7.7	7.8	7.9	7.8	7.6	7.8	7.7	7.8	7.6	7.5	7.5	7.6	7.6	7.6
1	Temp (°C)	25.5	24.6		24.9		24.9		25.5		25.6		25.0		24.7
	pH (su)	7.9	7.8		7.6		7.8		7.7		7.7		7.7		7.3
	DO (mg/L)	7.7	7.9	7.9	7.7	7.6	7.9	7.8	7.7	7.6	7.5	7.5	7.6	7.6	7.5
2	Temp (°C)	25.3	25.5		24.9		24.9		25.5		25.8		24.9		24.7
	pH (su)	8.0	7.9		7.6		7.9		7.7		7.7		7.6		7.4
	DO (mg/L)	7.6	7.7	7.9	7.7	7.6	7.8	7.8	7.6	7.6	7.5	7.5	7.5	7.6	7.5
4	Temp (°C)	25.3	24.2												
	pH (su)	7.9	7.8												
	DO (mg/L)	7.7	8.0												
Thermocouple		FS16	FS16		FS16		FS16		FS16		FS16		FS16		FS16
pH Meter		pH3	pH3		pH3		pH3		pH3		pH3		pH3		pH3
DO Meter		DO6	DO6		DO6		DO6		DO6		DO6		DO6		DO6
Conductivity Meter		SCT-5													
INITIALS:		AN	KV		JH		AN		JH		JH		JH		JH
DATE:		4/14/15	4/15/15		4/16/15		4/17/15		4/18/15		4/19/15		4/20/15		4/21/15
TIME:		1312	1425		1440		1430		1340		1345		1605		1545

Temp = Temperature DO = Dissolved Oxygen su = standard units Conductivity reported as umhos cm

SUBJECT: CERIODAPHNIA CHRONIC TEST - SURVIVAL

REFERENCE TOXICANT TEST

Test Substance: NaCl Test Species: *Ceriodaphnia dubia*

Test Conc (mg L)	Day	A AD	A N	B AD	B N	C AD	C N	D AD	D N	E AD	E N	F AD	F N	G AD	G N	H AD	H N	I AD	I N	J AD	J N
Control 0	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	4	1	2	1	5	1	3	1	0	1	0	1	3	1	0	1	5	1	2	1	4
	5	1	8	1	6	1	0	1	6	1	9	1	8	1	7	1	4	1	5	1	6
	6	1	10	1	0	1	10	1	8	1	11	1	13	1	14	1	0	1	9	1	1
	7	1	1	1	19	1	13	1	16	1	0	1	0	1	0	1	13	1	0	1	12
			21		30		26		30		20		24		21		22		14		23
0.125	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	4	1	2	1	3	1	4	1	0	1	2	1	1	1	1	1	4	1	0	1	1
	5	1	5	1	2	1	4	1	9	1	9	1	10	1	7	1	10	1	8	1	8
	6	1	8	1	3	1	2	1	13	1	15	1	11	1	16	1	12	1	13	1	0
	7	1	1	1	15	1	14	1	14	1	17	1	0	1	0	1	0	1	1	1	1
			16		23		24		36		26		22		24		26		22	X	19
0.25	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	4	1	5	1	8	1	3	1	2	1	0	1	0	1	0	1	5	1	4	1	0
	5	1	9	1	11	1	8	1	12	1	11			1	8	1	8	1	9	1	9
	6	1	12	1	0	1	10	1	14	1	12			1	1	1	14	1	14	1	15
	7	1	0	1	17	1	12	1	0	1	14			1	0	1	0	1	0	1	12
			26		36		21		28		37	X	0	X	9		27		27		26

TEST DAY	0	1	2	3	4	5	6	7
INITIALS	AN	AN	JH	KK	JH	AN	JH	JH
DATE	4/14/15	4/15/15	4/16/15	4/17/15	4/18/15	4/19/20	4/20/15	4/21/15
TIME	1150	1400	1425	1430	1300	1225	1505	1430

A = Alive D = Dead N = Neonates (number of neonates recorded for day observed; not cumulative)

SUBJECT: CERIODAPHNIA CHRONIC TEST - SURVIVAL

REFERENCE TOXICANT TEST

Test Substance: NaCl Test Species: *Ceriodaphnia dubia*

Test Conc	Day	A AD	A N	B AD	B N	C AD	C N	D AD	D N	E AD	E N	F AD	F N	G AD	G N	H AD	H N	I AD	I N	J AD	J N
0.5	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	4	1	6	1	0	1	0	1	0	1	1	1	2	1	0	1	3	1	1	1	4
	5	1	8	1	4	1	0	1	9	1	8	1	10	1	8	1	11	1	10	1	5
	6	1	1	1	7	1	9	1	12	1	14	1	14	1	16	1	8	1	13	1	15
	7	1	10	1	9	1	12	1	0	1	9	1	1	1	0	1	1	1	0	1	1
			25		20		21		21		23		24 27		24		23		24		25
1	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	4	1	0	1	0	1	5	1	0	1	0	1	3	1	2	1	1	1	4	1	0
	5	1	0	1	0	1	5	1	6	1	8	1	9	1	6	1	8	1	5	1	6
	6	1	0	1	9	1	2	1	7	10	0	1	7	1	10	1	0	1	9	10	0
	7	1	7	1	8	1	8	1	1	1	1	1	0	1	0	1	10	1	0	1	1
			7		17		20		14	X	8		19		18		19		18	X	6
2	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	10	0	10	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3					1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	4					1	0	1	2	1	0	1	0	1	0	1	0	1	1	1	0
	5					1	0	1	0	1	3	1	2	1	5	1	0	1	0	1	3
	6					1	1	1	2	1	0	1	0	1	0	1	3	1	0	1	0
	7					1	0	1	3	1	3	1	1	1	2	1	6	1	1	1	1
		X	0	X	0		1		7		6		3		7		9		2		4

TEST DAY	0	1	2	3	4	5	6	7
INITIALS	AN	AN	JH	KK	JH	AN	JH	
DATE	4/14/15	4/15/15	4/16	4/17/15	4/18	4/19	4/20	
TIME	1150	1400	1435	1440	1300	1225	1515	

A = Alive D = Dead N = Neonates (number of neonates recorded for the observed, or cumulative)

AMEC, Inc.
Newberry, Florida

QA Form Number: 054
Revised: March 2001

SUBJECT: CERIODAPHNIA CHRONIC TEST - SURVIVAL

REFERENCE TOXICANT TEST

Test Substance: NaCl Test Species: *Ceriodaphnia dubia*

Test Conc	REPLICATE	A		B		C		D		E		F		G		H		I		J	
	Day	AD	N	AD	N	AD	N	AD	N	AD	N	AD	N	AD	N	AD	N	AD	N	AD	N
4	1	O	1D	O	1D	O	1D	O	1D	O	1D	O	1D	O	1D	O	1D	O	1D	O	1D
	2																				
	3																				
	4																				
	5																				
	6																				
	7																				
	1																				
	2																				
	3																				
	4																				
	5																				
	6																				
	7																				
	1																				
	2																				
	3																				
	4																				
	5																				
	6																				
	7																				

TEST DAY	0	1	2	3	4	5	6	7		
INITIALS	AN	AN								
DATE	4/15/15	4/15/15								
TIME	1150	1400								

A = Alive D = Dead N = Neonates (number of neonates recorded for day observed, not cumulative)

CETIS Summary Report

Report Date: 23 Apr-15 11:03 (p 1 of 2)
Test Code: 14-1227-8103/RT7DCD20150414

Ceriodaphnia 7-d Survival and Reproduction Test — **AMEC Biology-Toxicology LAB**

Batch ID:	19-9788-1488	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	
Start Date:	14 Apr-15	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Dilute Mineral Water
Ending Date:	21 Apr-15	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Duration:	7d 0h	**Source:**	In-House Culture	**Age:**	<24h

Sample ID:	13-8524-6353	**Code:**	52912E91	**Client:**	ADMIN
Sample Date:	13 Apr-15	**Material:**	Sodium chloride	**Project:**	ADMIN
Receive Date:	14 Apr-15	**Source:**	Reference Toxicant		
Sample Age:	24h	**Station:**	In House		

Point Estimate Summary

Analysis ID	Endpoint	Level	gm/L	95% LCL	95% UCL	TU	Method
16-1121-8010	7d Survival Rate	LC5	0.0607	0.0299	0.732		Linear Interpolation (ICPIN)
		LC10	0.5	0.0607	2		
		LC15	0.732	0.0924	2.09		
		LC20	2	0.207	2.18		
		LC25	2.1	0.732	2.27		
		LC40	2.41	1.62	2.56		
		LC50	2.63	2	2.76		
02-2803-7940	Reproduction	IC5	0.559	0.0493	0.571		Linear Interpolation (ICPIN)
		IC10	0.621	0.101	0.673		
		IC15	0.685	0.216	0.767		
		IC20	0.751	0.533	0.908		
		IC25	0.821	0.633	1.02		
		IC40	1.05	0.827	1.23		
		IC50	1.24	0.94	1.39		

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
16-1121-8010	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Result Within Limits
02-2803-7940	Reproduction	Control Resp	23.1	15 - NL	Yes	Result Within Limits

7d Survival Rate Summary

Conc-gm/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	10	1	1	1	1	1	0	0	0.0%	0.0%
0.125		10	0.9	0.782	1	0	1	0.0577	0.316	35.1%	10.0%
0.25		10	0.8	0.643	0.957	0	1	0.077	0.422	52.7%	20.0%
0.5		10	1	1	1	1	1	0	0	0.0%	0.0%
1		10	0.8	0.643	0.957	0	1	0.077	0.422	52.7%	20.0%
2		10	0.8	0.643	0.957	0	1	0.077	0.422	52.7%	20.0%
4		10	0	0	0	0	0	0	0		100.0%

Reproduction Summary

Conc-gm/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	10	23.1	21.3	24.9	14	30	0.875	4.79	20.8%	0.0%
0.125		10	22.8	20.2	25.4	9	36	1.27	6.96	30.5%	1.3%
0.25		10	23.7	19.5	27.9	0	37	2.08	11.4	48.0%	-2.6%
0.5		10	23.3	22.5	24.1	20	27	0.395	2.16	9.28%	-0.87%
1		10	14.6	12.5	16.7	6	20	1	5.5	37.7%	36.8%
2		10	3.9	2.7	5.1	0	9	0.587	3.21	82.4%	83.1%
4		10	0	0	0	0	0	0	0		100.0%

Analyst: PB QA: SM

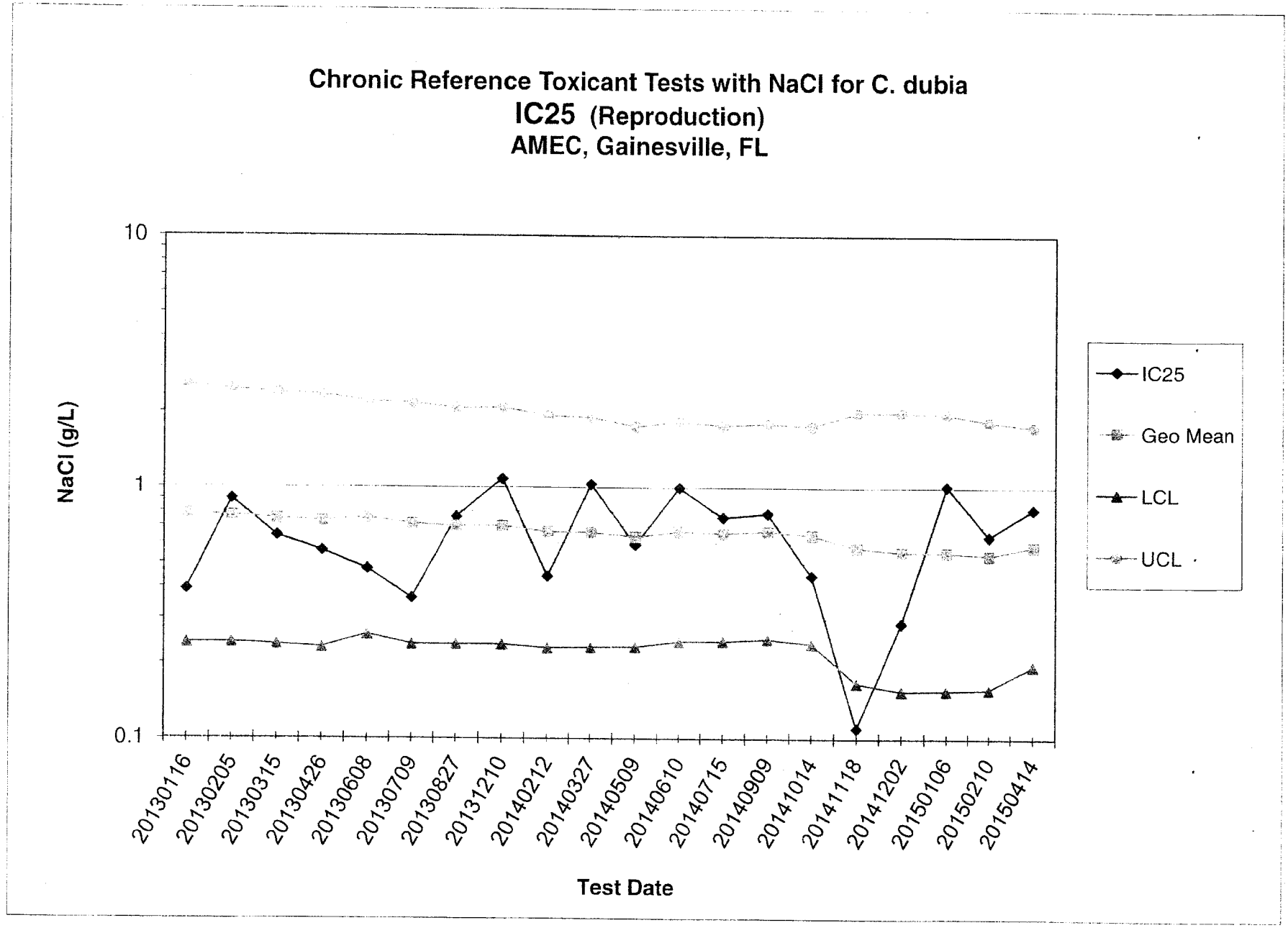
Ceriodaphnia 7-d Survival and Reproduction Test — **AMEC Biology-Toxicology LAB**

7d Survival Rate Detail

Conc-gm/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	1	1	1	1	1	1	1	1	1	1
0.125		1	1	1	1	1	1	1	1	1	0
0.25		1	1	1	1	1	0	0	1	1	1
0.5		1	1	1	1	1	1	1	1	1	1
1		1	1	1	1	0	1	1	1	1	0
2		0	0	1	1	1	1	1	1	1	1
4		0	0	0	0	0	0	0	0	0	0

Reproduction Detail

Conc-gm/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	21	30	26	30	20	24	21	22	14	23
0.125		16	23	24	36	26	22	24	26	22	9
0.25		26	36	21	28	37	0	9	27	27	26
0.5		25	20	21	21	23	27	24	23	24	25
1		7	17	20	14	8	19	18	19	18	6
2		0	0	1	7	6	3	7	9	2	4
4		0	0	0	0	0	0	0	0	0	0


Chronic Reference Toxicant Tests with NaCl for C. dubia
IC25 (Reproduction)
AMEC, Gainesville, FL
NaCl (g/L)
10
1
0.1
20130116
20130205
20130315
20130426
20130608
20130709
20130827
20131210
20140212
20140327
20140509
20140610
20140715
20140909
20141014
20141118
20141202
20150106
20150210
20150414
Test Date
IC25
Geo Mean
LCL
UCL

Fathead Minnow
Reference Toxicant Test Data Sheets

Amec Foster Wheeler
Newberry, Florida

Revised: March 2015

SUBJECT: PROMELAS CHRONIC TEST - COVER

Reference Toxicant

Test Substance: NaCl

Test Species: *Pimephales promelas*

ANIMAL HISTORY

LOT NUMBER: 2015-23

See Page 19 of Organism Receipt Log

Date received: 4/21/15

Age of Organisms: <24 hrs

Condition of Organisms: good

TEST CONDITIONS

Test Protocol: EPA-821-R-02-013 1000.0

Dulution water Type: Chemically Prepared Mod Hard Water

Dilution Water Batch number: MHW20150424

Type Lighting: Fluorescent

Photoperiod: 16 light·8 dark

Test Container: 600ml Glass Beaker

Solution Volume: 250 mL

Replicates per Concentration: 4

Organisms per rep: 10

Test Temperature: 25 ± 1 °C

WaterBath / Incubator (circle one)

TEST SOLUTION PREPARATION

15g NaCl /L or 30g NaCl/2L of dilution water

Reftox Batch # NACL2015

TEST CONCENTRATION g/L	Control	0.75	1.5	3	6	12	-
Volume of dilution Water Added (ml)	3500	3325	3150	2800	2100	200	-
Volume of Effluent / Stock Added (ml)	---	175	350	700	1400	800	-

TEST VALIDITY CRITERIA

80% survial in controls; average dry weight per surviving organism in control chambers equals or exceeds 0.25 mg

Percent Survival of Control Adults: 95 %

Average dry weight of survival in the Control: 0.962

TEST SUMMARY

Test Concentration (g/L)	Number of Surviving organisms	Percent Survival	Comments
CONTROL	38	95	
0.75	39	97.5	
1.5	40	100	
3	32	80	
6	12	30	
12	0	0	
-			

Additional Comments:

TEST DATA RECORDED BY: PB DATE: 4/30/15

TEST SUMMARY RECORDED BY: PB DATE: 4/30/15

Amec Foster Wheeler
Newberry, Florida

QA Form Number: 055
Revised: March 2015

SUBJECT: PROMELAS CHRONIC TEST - WATER QUALITY

REFERENCE TOXICANT TEST

Test Substance: NaCl

Test Species: Pimephales promelas

Test Conc %	Parameter	Day 0	Day 1 Old	Day 1 New	Day 2 Old	Day 2 New	Day 3 Old	Day 3 New	Day 4 Old	Day 4 New	Day 5 Old	Day 5 New	Day 6 Old	Day 6 New	Day 7
CTRL (0)	Temp (°C)	25.3	23.6		25.6		25.1		26.0		25.4		24.8		25.0
	pH (su)	8.0	6.7		8.0		7.2		6.4		7.6		7.6		7.7
	DO (mg/L)	7.7	6.8	7.4	6.6	8.1	5.6	7.6	5.5	7.5	5.6	7.5	5.9		5.8
0.75	Temp (°C)	25.1	24.5		25.4		25.0		25.9		25.3		24.6		25.2
	pH (su)	8.0	7.2		7.5		7.2		6.8		7.8		7.6		7.5
	DO (mg/L)	7.7	6.9	7.5	6.5	8.1	5.5	7.7	5.4	7.5	5.4	7.5	6.0		6.2
1.5	Temp (°C)	25.1	24.3		25.3		25.0		25.9		25.1		24.5		25.1
	pH (su)	7.9	7.3		7.4		7.3		6.9		7.8		7.7		7.5
	DO (mg/L)	7.7	6.9	7.6	6.5	8.1	6.0	8.1	5.3	7.6	5.9	7.5	6.0		6.4
3	Temp (°C)	25.2	24.3		25.4		25.0		25.9		25.3		24.6		25.1
	pH (su)	7.8	7.3		7.4		7.2		6.8		7.6		7.7		7.4
	DO (mg/L)	7.7	6.8	7.6	6.6	8.1	6.2	8.3	5.6	7.6	6.4	7.5	6.2		6.7
6	Temp (°C)	25.1	24.3		25.3		25.0		25.9		25.3		24.6		25.1
	pH (su)	7.7	7.4		7.4		7.0		6.8		7.6		7.7		7.3
	DO (mg/L)	7.6	6.9	7.4	6.6	8.1	6.1	8.0	5.6	7.6	6.3	7.5	6.2		6.4
12	Temp (°C)	25.0	24.4												
	pH (su)	7.5	7.3												
	DO (mg/L)	7.7	6.6												
Thermocouple		FS13	FS13		FS16		FS16		FS16		FS16		FS16		FS16
pH Meter		pH3	pH3		pH3		pH3		pH3		pH3		pH3		pH3
DO Meter		DO6	DO6		DO6		DO6		DO6		DO6		DO6		DO6
INITIALS:		AN	SS		KK		AN		KK		AN		SS		[illegible]
DATE:		4/12/15	4/22/15		4/23/15		4/24/15		4/25/15		4/26/15		4/27/15		4/28/15
TIME:		1343	1400		1115		1414		1430		1430		1320		1700

Temp = Temperature DO = Dissolved Oxygen su = standard units Conductivity reported as umhos/cm

SHORT-TERM CHRONIC TOXICITY TEST

Organism Exposed: *P. promelas*

Reftox														Test Substance: WWTP Effluent					
		Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Date	Date
		0	4/21/15	1	4/22/15	2	4/23/15	3	4/24/15	4	4/25/15	5	4/26/15	6	4/27/15	7	4/28/15	4/23/15	4/29/15
Treatment, unit: %	Replicate	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	Weight of Oven-Dried Pan (g)	Dry Weight of Pan and Organisms (g)
CTRL	A	10	loaded	10	N	10	N	9	ID	9	N	9	N	9	N	9	N	1.1056	1.1138
	B			10	N	10	N	9	ID	9	N	9	N	9	N	9	N	1.1210	1.1302
	C			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1148	1.1256
	D			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1048	1.1151
	E																		
	F																		
0.75	A			10	N	10	N	10	N	10	N	10	N	10	N	9	ID	1.1053	1.1166
	B			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1049	1.1189
	C			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.0999	1.1132
	D			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1141	1.1245
	E			1															
	F																		
1.5	A			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1008	1.1148
	B			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1089	1.1214
	C			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1216	1.1322
	D			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.0961	1.1063
	E																		
	F																		
Date recorded by:		Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Initials
		AN	1330	KK	1200	KK	1100	SES	1400	KK	1400	AN	1315	KK	1200	AN	1202	PB	PB

PB 4/29/15

N = Normal Leth = Err = Swimming A = NF = Not D = Dead Obs.= Observation

Reftox																			
		Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Date	Date
		0	4/21	1	4/22	2	4/23	3	4/24	4	4/25	5	4/26	6	4/27	7	4/28	4/23/15	4/29/15
3	A	10 loaded		10	N	10	N	9	1D	9	N	9	N	9	N	8	1D	1.1266	1.1357
	B			9	1D	9	N	9	~~1D~~ N SES 4/24	9	N	9	N	9	N	9	N	1.0878	1.0987
	C			10	N	10	N	8	2D	6	2D	6	N	6	N	~~8~~ 6	N	1.0860	1.0947
	D			10	N	10	N	9	1D	9	N	9	N	9	N	9	N	1.0779	1.0890
	E																		
	F																		
6	A			9	1D	9	N	5	4D	5	N	5	N	5	N	5	N	1.08~~0~~3 2	1.0865
	B			10	N	10	N	4	6D	4	N	4	N	4	N	2	2D		1.0903
	C			8	2D	8	N	1	~~7D~~	1	N	1	N	1	N	1	N	1.0888	1.0758
	D			10	N	10	N	4	6D	4	N	4	N	4	N	4	N	1.0750	1.0934
	E																	1.0903	
	F																		
12	A			~~0~~	10D														
	B			~~0~~	10D														
	C			~~0~~	10D														
	D			~~0~~	10D														
	E																		
	F																		
Date recorded by:		Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Initials
		AN	1330	KK	1200	KK	1100	SES	1405	KK	1400	AN	1315	KK	1200	AN	1202	PB	PB

PB
TE
4/23/15

N = Normal Leth = Lethargic Err = Swimming Erratically A = Alive NF = Not Found D = Dead

CETIS Summary Report

Report Date: 30 Apr-15 12:50 (p 1 of 2)
Test Code: 12-6491-7376/RT7DPP20150421

Fathead Minnow 7-d Larval Survival and Growth Test — **AMEC Biology-Toxicology LAB**

Batch ID:	03-3094-7149	**Test Type:**	Growth-Survival (7d)	**Analyst:**	
Start Date:	21 Apr-15	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Mod-Hard Synthetic Water
Ending Date:	28 Apr-15	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Duration:	7d 0h	**Source:**	Hydrosphere	**Age:**	<24h

Sample ID:	16-5980-4758	**Code:**	62EE9C56	**Client:**	ADMIN
Sample Date:	20 Apr-15	**Material:**	Sodium chloride	**Project:**	ADMIN
Receive Date:	21 Apr-15	**Source:**	Reference Toxicant		
Sample Age:	24h	**Station:**	In House		

Point Estimate Summary

Analysis ID	Endpoint	Level	gm/L	95% LCL	95% UCL	TU	Method
20-0665-5374	7d Survival Rate	LC5	2.34	1.59	2.91		Linear Regression (MLE)
		LC10	2.72	1.97	3.28		
		LC15	3.01	2.28	3.57		
		LC20	3.27	2.54	3.82		
		LC25	3.5	2.79	4.06		
		LC40	4.17	3.51	4.77		
		LC50	4.63	3.99	5.3		
01-8113-1122	Mean Dry Biomass-mg	IC5	2.07	0.663	3.73		Linear Interpolation (ICPIN)
		IC10	2.77	1.06	3.56		
		IC15	3.12	1.86	3.62		
		IC20	3.3	2.66	3.8		
		IC25	3.48	2.98	3.95		
		IC40	4.07	3.6	4.57		
		IC50	4.52	4.01	5.07		

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
20-0665-5374	7d Survival Rate	Control Resp	0.95	0.8 - NL	Yes	Result Within Limits
01-8113-1122	Mean Dry Biomass-mg	Control Resp	0.962	0.25 - NL	Yes	Result Within Limits

7d Survival Rate Summary

Conc-gm/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	4	0.95	0.928	0.972	0.9	1	0.0105	0.0577	6.08%	0.0%
0.75		4	0.975	0.956	0.994	0.9	1	0.00913	0.05	5.13%	-2.63%
1.5		4	1	1	1	1	1	0	0	0.0%	-5.26%
3		4	0.8	0.747	0.853	0.6	0.9	0.0258	0.141	17.7%	15.8%
6		4	0.3	0.232	0.368	0.1	0.5	0.0333	0.183	60.9%	68.4%
12		4	0	0	0	0	0	0	0		100.0%

Mean Dry Biomass-mg Summary

Conc-gm/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	4	0.962	0.919	1.01	0.82	1.08	0.0212	0.116	12.1%	0.0%
0.75		4	1.22	1.16	1.29	1.04	1.4	0.0307	0.168	13.7%	-27.3%
1.5		4	1.18	1.12	1.25	1.02	1.4	0.0322	0.176	14.9%	-22.9%
3		4	0.995	0.949	1.04	0.87	1.11	0.0224	0.123	12.3%	-3.38%
6		4	0.24	0.183	0.297	0.08	0.42	0.0281	0.154	64.1%	75.1%
12		4	0	0	0	0	0	0	0		100.0%

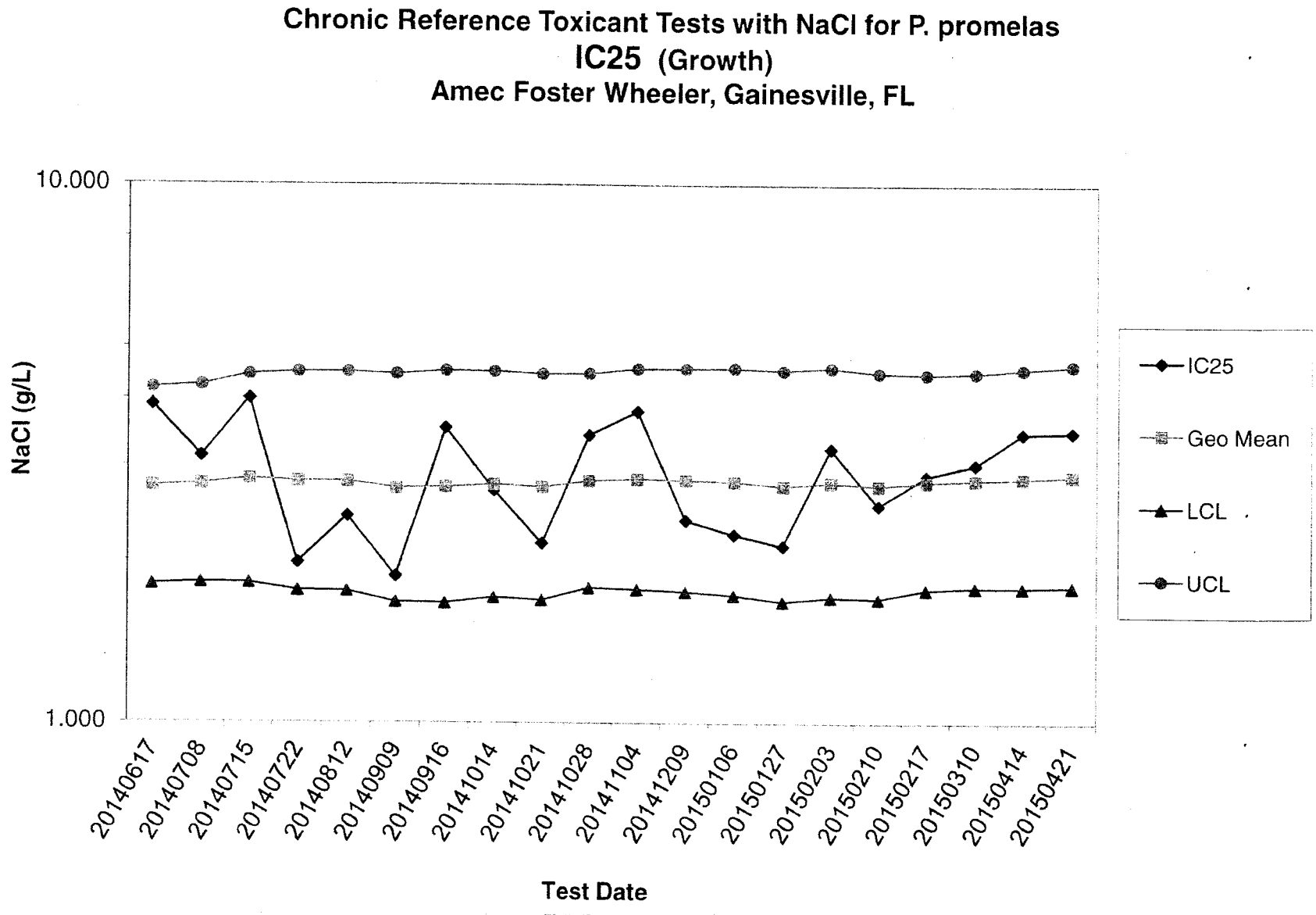
Fathead Minnow 7-d Larval Survival and Growth Test — **AMEC Biology-Toxicology LAB**

7d Survival Rate Detail

Conc-gm/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	0.9	0.9	1	1
0.75		0.9	1	1	1
1.5		1	1	1	1
3		0.8	0.9	0.6	0.9
6		0.5	0.2	0.1	0.4
12		0	0	0	0

Mean Dry Biomass-mg Detail

Conc-gm/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	0.82	0.92	1.08	1.03
0.75		1.13	1.4	1.33	1.04
1.5		1.4	1.25	1.06	1.02
3		0.91	1.09	0.87	1.11
6		0.42	0.15	0.08	0.31
12		0	0	0	0


Chronic Reference Toxicant Tests with NaCl for P. promelas
IC25 (Growth)
Amec Foster Wheeler, Gainesville, FL
10.000
1.000
NaCl (g/L)
20140617
20140708
20140715
20140722
20140812
20140909
20140916
20141014
20141021
20141028
20141104
20141209
20150106
20150127
20150203
20150210
20150217
20150310
20150414
20150421
Test Date
IC25
Geo Mean
LCL
UCL

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I D NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	06

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for the pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part, please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			< 0.05						1	mg/l	lb/day	< 0.05		1
2M. Arsenic, Total (7440-38-2)	X			< 0.03						1	mg/l	lb/day	< 0.03		1
3M. Beryllium, Total, 7440-41-7	X			< 0.01						1	mg/l	lb/day	< 0.01		1
4M. Cadmium, Total (7440-43-9)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
5M. Chromium Total (7440-47-3)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
6M. Copper, Total (7440-50-8)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
7M. Lead, Total (7439-92-1)	X			< 0.025						1	mg/l	lb/day	< 0.025		1
8M. Mercury, Total (7439-97-6)	X			< 0.00001						1	mg/l	lb/day	0.0000342		1
9M. Nickel, Total (7440-02-0)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
10M. Selenium, Total (7782-49-2)	X			< 0.04						1	mg/l	lb/day	< 0.04		1
11M. Silver, Total (7440-22-4)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
12M. Thallium, Total (7440-28-0)	X			< 0.2						1	mg/l	lb/day	< 0.2		1
13M. Zinc, Total (7440-66-6)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
14M. Cyanide, Total (57-12-5)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
15M. Phenols, Total	X			< 0.05						1	mg/l	lb/day	< 0.05		1
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

GA0026051 – GPC PLANT BRANCH 2017

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1V. Acrolein (107-02-8)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
2V. Acrylonitrile (107-13-1)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
3V. Benzene (71-43-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
4V. Bis(*Chloromethyl*) Ether (542-88-1)			X							1	mg/l	lb/day			1
5V. Bromoform (75-25-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
6V. Carbon Tetrachloride(56-23-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
7V. Chlorobenzene (108-90-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
8V. Chlorodibromomethane (124-48-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9V. Chloroethane (75-00-3)	X			< 0.005						1	mg/l	lb/day	< 0.005		1
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11V. Chloroform (67-66-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
12V. Dichlorobromomethane (75-71-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
13V. Dichlorodifluoromethane (75-71-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
14V. 1,1-Dichloroethane (75-34-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
15V. 1,2-Dichloroethane (107-06-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
16V. 1,1-Dichloroethylene (75-35-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
17V. 1,2-Dichloropropane (78-87-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
18V. 1,3-Dichloropropylene (542-75-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
19V. Ethylbenzene (100-41-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
20V. Methyl Bromide (74-83-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
21V. Methyl Chloride (74-87-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
GAD000612895	06

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
23V. 1,1,2,2Tetra-chloroethane (79-34-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
24V. Tetrachloroethylene (127-18-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
25V. Toluene (108-88-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
26V. 1,2-Trans-Dichloro-ethylene (156-60-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
27V. 1,1,1-Trichloroethane (71-56-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
28V. 1,1,2-Trichloroethane (79-00-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
29V. Trichloroethylene (79-01-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
30V. Trichlorofluoro-methane (75-69-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
31V. Vinyl Chloride (75-01-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
GC/MS FRACTION — ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
2A. 2,4-Dichlorophenol (120-83-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
3A. 2,4-Dimethylphenol (105-67-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
5A. 2,4-Dinitrophenol (51-28-5)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
6A. 2-Nitrophenol (88-75-5)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
7A. 4-Nitrophenol (100-02-7)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
8A. P-Chloro-M-Cresol (59-50-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9A. Pentachlorophenol (87-86-5)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
10A. Phenol (108-95-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11A. 2,4,6-Trichloro-phenol (88-06-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

CONTINUE ON REVERSE

GA0026051 – GPC PLANT BRANCH 2017

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
2B. Acenaphtylene (208-96-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
3B. Anthracene (120-12-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
4B. Benzidine (92-87-5)	X			<0 .080						1	mg/l	lb/day	< 0.080		1
5B. Benzo *(a)* Anthracene (56-55-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
6B. Benzo *(a)* Pyrene (50-32-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
7B. 3,4-Benzo-fluoranthene (205-99-2	X			< 0.010						1	mg/l	lb/day	< 0.010		1
8B. Benzo *(ghi)* Perylene (191-24-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9B. Benzo *(k)*Fluoranthene (207-08-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
15B. Butyl Benzyl Phthalate (85-68-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
16B. 2-Chloronaphthalene (91-58-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
18B. Chrysene (218-01-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
20B. 1,2-Dichloro-benzene (95-50-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
21B. 1,3-Dichloro-benzene (541-73-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	06

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	(2) MASS	d. NO OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
23B. 3,3-Dichlorobenzidine (91-94-1)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
24B. Diethyl Phthalate (84-66-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
25B. Dimethyl Phthalate (131-11-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
26B. Di-N-Butyl Phthalate (84-74-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
27B. 2,4-Dinitrotoluene (121-14-2)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
28B. 2,6-Dinitrotoluene (606-20-2)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
29B. Di-N-OctylPhthalate (117-84-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
30B. 1,2-Diphenyl-hydrazine *(as Azobenzene)* (122-66-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
31B. Fluoranthene (206-44-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
32B. Fluorene (86-73-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
33B. Hexachlorobenzene (118-74-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
34B. Hexachlorobutadiene (87-68-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
35B. Hexachlorocyclo-pentadiene (77-47-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
36B. Hexachloroethane (67-72-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
38B. Isophorone (78-59-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
39B. Naphthalene (91-20-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
40B. Nitrobenzene (98-95-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
41B. N-Nitrosodimethylamine (62-75-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

CONTINUE ON REVERSE

GA0026051 – GPC PLANT BRANCH 2017

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6	X			< 0.010						1	mg/l	lb/day	< 0.010		1
44B. Phenanthrene (85-01-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
45B. Pyrene (129-00-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
46B. 1,2,4-Trichlorobenzene (120-82-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
1P. Aldrin (309-00-2)			X								mg/l	lb/day			
2P. α-BHC (319-84-6)			X								mg/l	lb/day			
3P. β-BHC (319-85-7)			X								mg/l	lb/day			
4P. γ-BHC (58-89-9)			X								mg/l	lb/day			
5P. δ-BHC (319-86-8)			X								mg/l	lb/day			
6P. Chlordane (57-74-9)			X								mg/l	lb/day			
7P. 4,4'-DDT (50-29-3)			X								mg/l	lb/day			
8P. 4,4'-DDE (72-55-9)			X								mg/l	lb/day			
9P. 4,4'-DDD (72-54-8)			X								mg/l	lb/day			
10P. Dieldrin (60-57-1)			X								mg/l	lb/day			
11P. α-Endosulfan (115-29-7)			X								mg/l	lb/day			
12P. β-Endosulfan (115-29-7)			X								mg/l	lb/day			
13P. Endosulfan Sulfate (1031-07-8)			X								mg/l	lb/day			
14P. Endrin (72-20-8)			X								mg/l	lb/day			
15P. Endrin Aldehyde (7421-93-4)			X								mg/l	lb/day			
16P. Heptachlor (76-44-8)			X								mg/l	lb/day			

CONTINUE ON PAGE V-9

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CONTINUED FROM PAGE V-8

EPA I.D NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	06

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			X								mg/l	lb/day			
18P. PCB-1242 (53469-21-9)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
19P. PCB-1254 (11097-69-1)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
20P. PCB-1221 (11104-28-2)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
21P. PCB-1232 (11141-16-5)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
22P. PCB-1248 (12672-29-6)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
23P. PCB-1260 (11096-82-5)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
24P. PCB-1016 (12674-11-2)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
25P. Toxaphene (8001-35-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

NPDES Industrial Permit Application Addendum

Please check the applicable box and enter the associated information:

☐ New discharger — Name of facility: Georgia Power Plant Branch

☒ Existing NPDES discharger — Name of facility: — Existing NPDES Permit No.: GA0026051

SECTION I. CONTACT & FACILITY INFORMATION

Permit Application Contact Name (first & last): Jean Brown

Title: Environmental Specialist

E-mail Address: jeabrown@southernco.com

Total Design Flow (MGD): 5.76

Actual Design Flow (MGD):

Facility Latitude/Longitude (ex. 34.5364, -84.8045): 33.1145, -83.1753

EPA Major (circle one): *yes* or *no*

Primary Industry (circle one): *yes* or *no*

NAICS Codes: 59221112

SECTION II. EFFLUENT LIMITS AND CONDITIONS

1. Is there an effluent limit, standard, guideline, or categorical pretreatment standard established for this type of discharge in 40 CFR Part 400-471, as amended or elsewhere pursuant to 301, 306, 307, 316, 318, or 405 of the Clean Water Act?

☒ Yes ☐ No

If you answered "yes", to question No. 1 above, please complete the following table below by providing the name of the discharge category and the specific citation to the regulation, if applicable, that establishes the limitation or condition.

If you answered "no" to question No. 1 above, please proceed to Section No. III.

Section II, Table No. 1

Name of Discharge Category and Appropriate Citation From State of Federal Regulations.	Effluent Limitation or Condition: (Yes or No)	Name of Subpart and Appropriate Subpart Citation
Example: ***Iron and Steel Manufacturing; 40 CFR Part 420***	***Yes***	***Acid Pickling; 40 CFR part 420 subpart I***
Steam Electric Power Generating Point Source Category	Yes	40 CFR Part 423

2. Are any of the applicable effluent limitations applicable to the discharge(s) expressed in terms of production?

☐ Yes ☒ No

If you answered "yes", complete the following table below. For an existing discharge, list an actual measurement of your average or maximum level of daily production. For new discharges, list an average or maximum projected daily production. (indicate in the table whether the production figures given are average or maximum level.) Express the production in terms and units used in the applicable discharge limitation. Attach additional sheets if necessary.

If you answered "no" to question No. 2 above, please proceed to Section III.

Section II, Table No. 2 – Applicable Effluent Limit Guidelines

Name of Category and Subpart	Name and Quantity of Product per Day with Units of Measure	Description of Process	No. of Cycles through Process
Example: ***40CFR Part 420 Subpart I. Iron and Steel Manufacturing; Hydrochloric Acid Pickling***	***27,000 lbs of stainless steel strips (average)***	***Stainless steel strips are passed through solder flux baths in #1 Tinner***	***2***

SECTION III. WATER QUALITY

1. Name of Georgia major river basin(s) in which your discharge(s) enters: Oconee River - Lake Sinclair

2. Do you discharge to 305(b)/303(d) Listed Waters*?

☒ Yes ☐ No

If you answered "yes" to question No.2 above, please complete the Table No. 1 below.

If you answered "no" to question No. 2 above, please proceed to Section IV.

** Georgia's 305(b)/303(d) list can be found on EPD's website at the following web address:*
http://epd.georgia.gov/georgia_305b303d-list-documents

Section III, Table No. 1 – Applicable Water Quality

Outfall Identification ID	Name of Receiving Waters	Is The Receiving Water: 1) Supporting The Designated Use; 2) Not Supporting The Designated Use; or 3) Assessment Pending.	If The Receiving Water(s) Is Not Supporting The Designated Uses, What Is It Listed For?
Example: 001	*Oconee River*	*2*	*Sedimentation and Mercury*
001	Lake Sinclair	2	Temp

3. Is there an applicable Total Maximum Daily Load* (TMDL) for the receiving waters?

☒ Yes ☐ No

If you answered "yes" to question No. 3 above, complete the following table below. If you answered "no" proceed to Section No. IV.

** Georgia's list of TMDL's can be found on EPD's website at the following web address:*
http://epd.georgia.gov/total-maximum-daily-loadings

Section III, Table No. 2 – Applicable TMDL

Outfall Identification	Name of Receiving Water	Is your discharge listed in the TMDL?	Name and Year of TMDL
Example: Outfall 003	*Jacks Creek a tributary to Oconee River*	*yes*	*Zinc TMDL Report [2002]*
003	Lake Sinclair	Yes	Lake Sinclair Temperature 2002

SECTION IV. SUMMARY OF DISCHARGE ANALYSIS*

If you are a new industrial discharger, you may omit this Section of the NPDES Application Addendum and proceed to Section V. If you are an existing facility with an existing NPDES wastewater permit, please proceed to question No. 1 of this Section below.

1. Complete the following table with a summary of discharge analytical data from the *previous three (3) years*. To complete the table for renewals, refer to your existing permit; for other discharges previously permitted by EPD, refer to your previous authorization or permit. Reproduce and complete Section IV of the NPDES Application Addendum form for each outfall that you are proposing to renew.

Outfall Identification (as referenced on permit and monitoring report): Ash Transport Blowdown and pH at Final Outfall

Parameter	Maximum Loading (lbs/day)	Average Loading (lbs/day)	Maximum Concentration (units)	Average Concentration (units)	Number of Exceedances	Comments
Ex. BOD 5-day	*325*	*204*	*22 (mg/L)*	*45 (mg/L)*	*3*	
Ex. pH	*NA*	*NA*	*10.0 (max. s.u.)*	*7.3 (min. s.u.)*	*2*	
01A - pH	NA	NA	7.3 (max s.u.)	6.4 (min s.u.)	0	Final Outfall
03 - TSS	NA	NA	13	4	0	Ash Transport Blowdown
03 - O&G	NA	NA	0	0	0	Ash Transport Blowdown

SECTION V. 40 CFR 122.21(r) COOLING WATER INTAKE STRUCTURES

Does the Cooling Water Intake Structure Rule for Existing Facilities Apply?

Directions: Answer questions 1 through 4 below for your cooling water intake structure(s) (CWIS). If your answer to any one of these questions is "No", then the requirements of 40 CFR 125.94 through 125.99 do not apply to your facility, and you may proceed to Section No. X. However, the State reserves the right to establish BPJ requirements as allowed in 40 CFR 125.90(b) for facilities.

Note: If you are a new facility please contact the GA EPD.

1. Is the facility a point source that discharges under a NPDES permit to waters of the State?

☒ Yes ☐ No

If you answered "yes" to question No. 1 above, please proceed to question No. 2 below.

2. Is the cooling water intake structure withdrawing cooling water from waters of the State?

☐ Yes ☒ No

If you answered "yes" to question No. 2 above, please proceed to question No. 3 below.

Note: Obtaining cooling water from a public water system, using reclaimed water from wastewater treatment facilities or desalination plants, or recycling treated process wastewater effluent as cooling water does not constitute use of a cooling water intake structure.

3. Is the facility-wide design intake flow (DIF) for all cooling water intake structures at the facility greater than 2 MGD?

☐ Yes ☐ No

If you answered "yes" to question No. 3 above, please provide the facility-wide design intake flow (DIF) and actual intake flow (AIF) for all cooling water intake structures in box 3.a.

Note: Actual Intake Flow means the average volume of water withdrawn on an annual basis by the cooling water intake structures over the past three years

3.a.

DIF = _____ (mgd)

AIF = _____ (mgd)

4. Does the facility have an intake structure that withdraws more than 25 percent of the water for cooling purposes on an actual intake flow basis?

☐ Yes ☐ No

If you answered "yes" to question No. 4 above, please provide the AIF percentage used exclusively for cooling purposes in box 4.a.

4.a.

AIF = _____ %

Additional Information for Facilities to which the CWIS Rule applies

Section VI of this addendum lists the application requirements for all facilities for which the CWIS rule applies. The bullets below provide additional directions for which of following Sections VII, VIII and/or IX may also apply

- If you answered "yes" to question nos. 1, 2, 3 and 4 ***and*** you have an *existing unit at an existing facility*; the Impingement Mortality Best Technology Available (BTA) Standard, Section No. VII, applies to your facility.

- If you answered "yes" to question nos. 1, 2, 3 and 4 ***and*** your facility has a new unit at an existing facility; the Impingement Mortality BTA Standard, Section No. VIII, applies to you.

- If you answered "yes" to question nos. 1, 2, 3 and 4 **and** your facility withdraws greater than 125 MGD on an actual intake flow basis then the Entrainment BTA Standard, Section IX also applies to your facility.

What is the timing of the submission of information required in permit application under the 316(b) Rule? *(December 2014 EPA MEMO)*

If your permit expires prior to July 14, 2018, under 40 CFR Part 125.95(a)(2), a facility may request that the Director establish an alternative schedule for submission of some of the permit application information in 40 CFR Part 122.21(r), based on a showing of the owner or operator of the facility that it could not develop the information for which an alternative schedule is requested by the time required for the submission of the permit renewal application.

Please check the applicable box(s).

☐ I request the Director provide an alternative schedule for the submission of some of the permit application information in 40 CFR Part 122.21(r).

☐ I request the Director provide an alternative schedule for the submission of the following permit application requirements in 40 CFR Part 122.21(r).

- ☐ (2) Source water physical data
- ☐ (3) Cooling water intake structure data
- ☐ (4) Source water baseline biological characterization data
- ☐ (5) Cooling water system data
- ☐ (6) Chosen Method(s) of Compliance with Impingement Mortality Standard
- ☐ (7) Entrainment Performance Studies
- ☐ (8) Operational Status
- ☐ (9) Entrainment Characterization Study
- ☐ (10) Comprehensive Technical Feasibility and Cost Evaluation Study
- ☐ (11) Benefits Valuation Study
- ☐ (12) Non-water Quality Environmental and Other Impacts Study
- ☐ (13) Peer Review
- ☐ (H) All facilities must also submit with their permit application all information received as a result of any communication with a Field Office of the Fish and Wildlife Service and/or Regional Office of the National Marine Fisheries Service.

☐ I do not request an alternative schedule for the submission of some of the permit application information in 40 CFR Part 122.21(r). I have included the applicable permit application information required in 40 CFR Part 122.21(r).

SECTION VI. APPLICATION REQUIREMENTS FOR ALL EXISITNG FACILITIES

1. If you are an existing facility, then you are required to submit the following information in accordance with §122.21(r)(1)(ii)(A), as applicable, with your permit application.

Please check the box next to the required information which you are submitting with this application.

- ☐ (2) Source water physical data
- ☐ (3) Cooling water intake structure data
- ☐ (4) If applicable, Source water baseline biological characterization data
- ☐ (5) If applicable, Cooling water system data
- ☐ (6) If applicable, Chosen Method(s) of Compliance with Impingement Mortality Standard
- ☐ (7) If applicable, Entrainment Performance Studies
- ☐ (8) If applicable, Operational Status
- ☐ (H) All facilities must also submit with their permit application all information received as a result of any communication with a Field Office of the Fish and Wildlife Service and/or Regional Office of the National Marine Fisheries Service.

2. If you are an existing facility that withdraws greater than 125 mgd actual intake flow (AIF), as defined at 40 CFR 125.92 (a), of water for cooling purposes, then you are required to submit the following information in accordance with §122.21(r)(1)(ii)(B).

Please check the box next to the required information which you are submitting with this application.

- ☐ (2) Source water physical data
- ☐ (3) Cooling water intake structure data
- ☐ (9) Entrainment Characterization Study
- ☐ (10) Comprehensive Technical Feasibility and Cost Evaluation Study
- ☐ (11) Benefits Valuation Study
- ☐ (12) Non-water Quality Environmental and Other Impacts Study
- ☐ (13) Peer Review
- ☐ (H) All facilities must also submit with their permit application all information received as a result of any communication with a Field Office of the Fish and Wildlife Service and/or Regional Office of the National Marine Fisheries Service.

Note: If the owner or operator of an existing facility intends to comply with the BTA (best technology available) standards for entrainment using a closed-cycle recirculating system as defined at 40 CFR 125.92(c), the Director may reduce or waive some or all of the information required under paragraphs (r)(9) through (13) of this section. If you intend to comply with BTA standards for entrainment using closed cycle recirculating systems as referenced above, please contact EPD.

3. If you are a new unit at an existing facility, as defined at 40 CFR 125.92(u), you must submit or update the following information in accordance with §122.21(r)(1)(ii)(D).

Please check the box next to the required information which you are submitting with this application.

- ☐ (4) If applicable, Source water baseline biological characterization data
- ☐ (5) Cooling water system data
- ☐ (6) If applicable, Chosen Method(s) of Compliance with Impingement Mortality Standard
- ☐ (7) If applicable, Entrainment Performance Studies
- ☐ (8) Operational Status
- ☐ (H) All facilities must also submit with their permit application all information received as a result of any communication with a Field Office of the Fish and Wildlife Service and/or Regional Office of the National Marine Fisheries Service.

4. If you are a new unit at an existing facility, as defined at 40 CFR 125.92(u), not previously subject to part 125 that increases the total capacity of the existing facility to more than 2 mgd DIF, you must submit the following information in accordance with §122.21(r)(1)(ii)(E).

Please check the box next to the required information which you are submitting with this application.

- ☐ (4) If applicable, Source water baseline biological characterization data
- ☐ (5) Cooling water system data
- ☐ (6) If applicable, Chosen Method(s) of Compliance with Impingement Mortality Standard
- ☐ (7) If applicable, Entrainment Performance Studies
- ☐ (8) Operational Status
- ☐ (9) If total capacity increases to more than 125 mgd, Entrainment Characterization Study
- ☐ (10) If total capacity increases to more than 125 mgd, Comprehensive Technical Feasibility and Cost Evaluation Study
- ☐ (11) If total capacity increases to more than 125 mgd, Benefits Valuation Study
- ☐ (12) If total capacity increases to more than 125 mgd, Non-water Quality Environmental and Other Impacts Study
- ☐ (13) Peer Review
- ☐ (H) All facilities must also submit with their permit application all information received as a result of any communication with a Field Office of the Fish and Wildlife Service and/or Regional Office of the National Marine Fisheries Service.

Note: If the owner or operator of an existing facility intends to comply with the BTA (best technology available) standards for entrainment using a closed-cycle recirculating system as defined at 40 CFR 125.92(c), the Director may reduce or waive some or all of the information required under paragraphs (r)(9) through (13) of this section. If you intend to comply with BTA standards for entrainment using closed cycle recirculating systems as referenced above, please contact EPD.

SECTION VII. *BTA STANDARD FOR IMPINGEMENT MORTALITY FOR EXISTING UNITS AT EXISTING FACILITIES*

The final rule requires that existing facilities subject to this rule must comply with one of the following seven alternatives listed below identified in the national BTA standard for impingement mortality at § 125.94(c) (hereafter, impingement mortality standards).

Note: Please check the box under the applicable impingement mortality standard in which your facility currently has in operation or intends to install to comply with the referenced standard. Please also provide the appropriate documentation for the chosen alternative and attach it your application.

1. Operate a closed-cycle recirculating system as defined at § 125.92;

   ☐ Currently in operation ☐ Request a compliance schedule

2. Operate a cooling water intake structure that has a maximum through screen design intake velocity of 0.5 fps or less;

   ☐ Currently in operation ☐ Request a compliance schedule

3. Operate a cooling water intake structure that has a maximum through screen intake velocity of 0.5 fps;
   a) In the case of Option (3), which EPA considers to be a streamlined alternative, the facility must submit information to the Director that demonstrates that the maximum intake velocity as water passes through the structural components of a screen measured perpendicular to the screen mesh does not exceed 0.5 feet per second.

   ☐ Currently in operation ☐ Request a compliance schedule

4. Operate an offshore velocity cap as defined at § 125.92 that is installed before October 14, 2014;

   ☐ Currently in operation ☐ Request a compliance schedule

5. Operate a modified traveling screen that the Director determines meets the definition at § 125.92(s) and that the Director determines is the best technology available for impingement reduction;
   a) In the case of Option (5), the facility must submit a site-specific impingement technology performance optimization study that must include two years of biological sampling demonstrating that the operation of the modified traveling screens has been optimized to minimize impingement mortality. As discussed below, if the facility does not already have this technology installed and chooses this option, the Director may postpone this study till the screens are installed (see VI.G.1.d below).

   ☐ Currently in operation ☐ Request a compliance schedule

6. Operate any other combination of technologies, management practices and operational measures that the Director determines is the best technology available for impingement reduction; or

(a) In the case of Option (6), the facility must submit a site-specific impingement study including two years of biological data collection demonstrating that the operation of the system of technologies, operational measures and best management practices has been optimized to minimize impingement mortality. If this demonstration relies in part on a credit for reductions in the rate of impingement already achieved by measures taken at the facility, an estimate of those reductions and any relevant supporting documentation must be submitted. The estimated reductions in rate of impingement must be based on a comparison of the system to a once-through cooling system with a traveling screen whose point of withdrawal from the surface water source is located at the shoreline of the source waterbody.

☐ Currently in operation ☐ Request a compliance schedule

7. Achieve the specified impingement mortality performance standard.

(a) The impingement mortality performance standard in (7) requires that a facility must achieve a 12-month impingement mortality performance of all life stages of fish and shellfish of no more than 24 percent mortality, including latent mortality, for all non-fragile species that are collected or retained in a sieve with maximum opening dimension of 0.56 inches and kept for holding period of 18 to 96 hours. The Director may, however, prescribe an alternative holding period.

The 12-month average of impingement mortality is calculated as the sum of total impingement mortality for the previous 12 months divided by the sum of total impingement for the previous 12 months. A facility must choose to demonstrate compliance with this requirement for the entire facility, or for each individual cooling water intake structure. Biological monitoring must be completed at a minimum frequency of monthly.

☐ Currently in operation ☐ Request a compliance schedule

SECTION VIII. BTA STANDARDS FOR IMPINGEMENT MORTALITY AND ENTRAINMENT FOR NEW UNITS AT EXISTING FACILITIES

The owner or operator of a new unit at an existing facility must achieve one of two compliance alternatives under the national BTA standards for impingement mortality and entrainment for new units at existing facilities at § 125.94(e) (hereafter, new unit standards).

☐ Option No. 1

You must reduce AIF at the new unit, at a minimum, to a level commensurate with that which can be attained by the use of a closed-cycle recirculating system as defined at § 125.92(c)(1).

☐ Option No. 2

You must demonstrate to the Director that it has installed and will operate and maintain, technological or other control measures that reduce the level of adverse environmental impact from any cooling water intake structure used to supply cooling water to the new unit to a comparable level to that which would be achieved through flow reductions commensurate with the use of a closed-cycle recirculating system. Under this alternative, the owner or operator of a facility must demonstrate entrainment mortality reductions that are equivalent to 90 percent or greater of the reduction that could be achieved through compliance with the first alternative entrainment standard for new units.

SECTION IX. ENTRAINMENT BTA

The Director must establish the Entrainment BTA requirement for your facility on a site-specific basis in accordance with § 125.98(f)(2).

If you withdraw greater than 125 mgd AIF, you must develop and submit an Entrainment Characterization Study (§ 122.21(r)(9)), as well as provide other information required in § 122.21(r)(7) and (10), (11), (12) and (13) that must include specified data pertinent to consideration of several of the factors identified in § 125.98(f).

Please include your Entrainment Characterization Study as well as the other required information referenced above with your application.

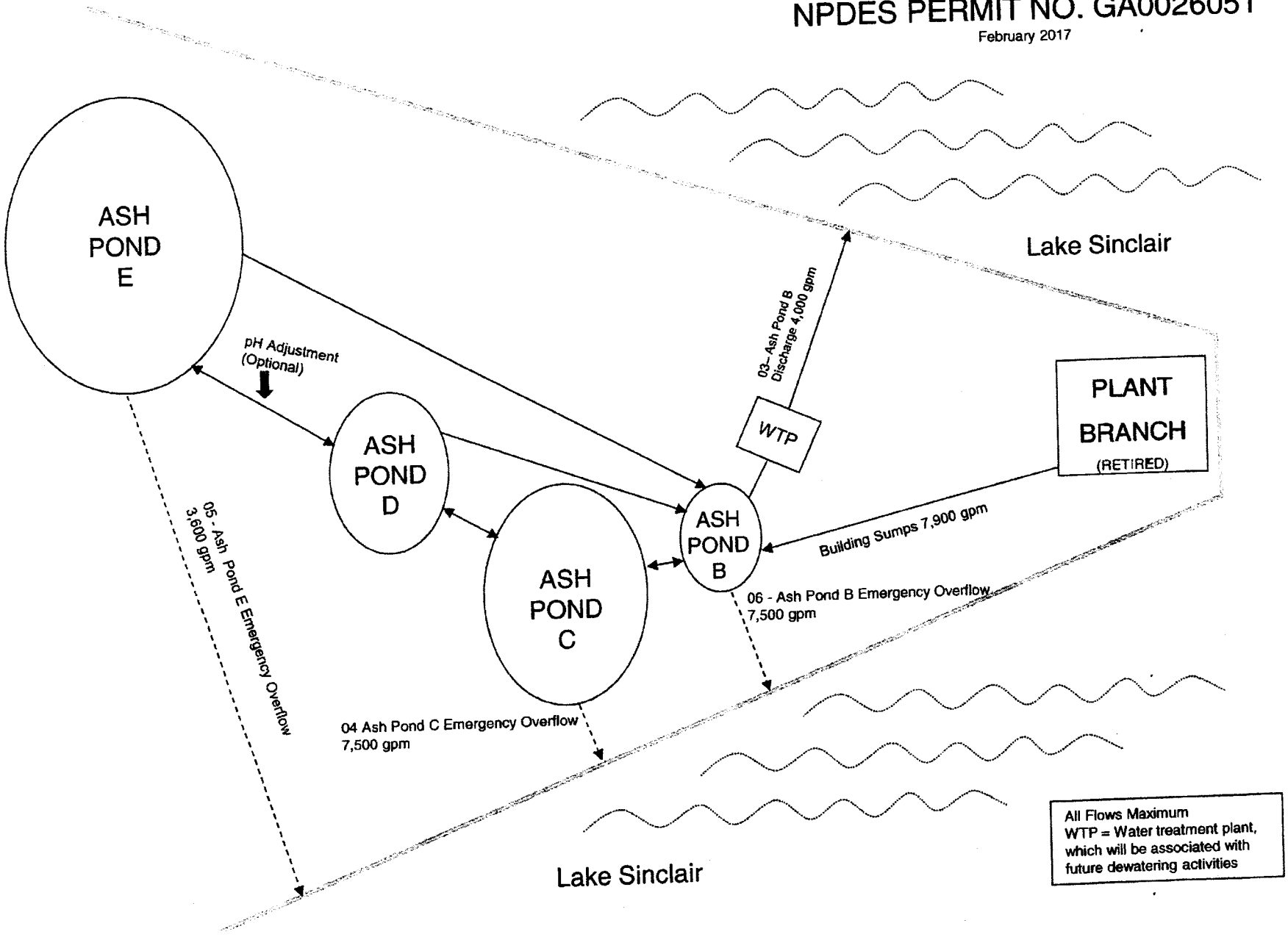
SECTION X. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

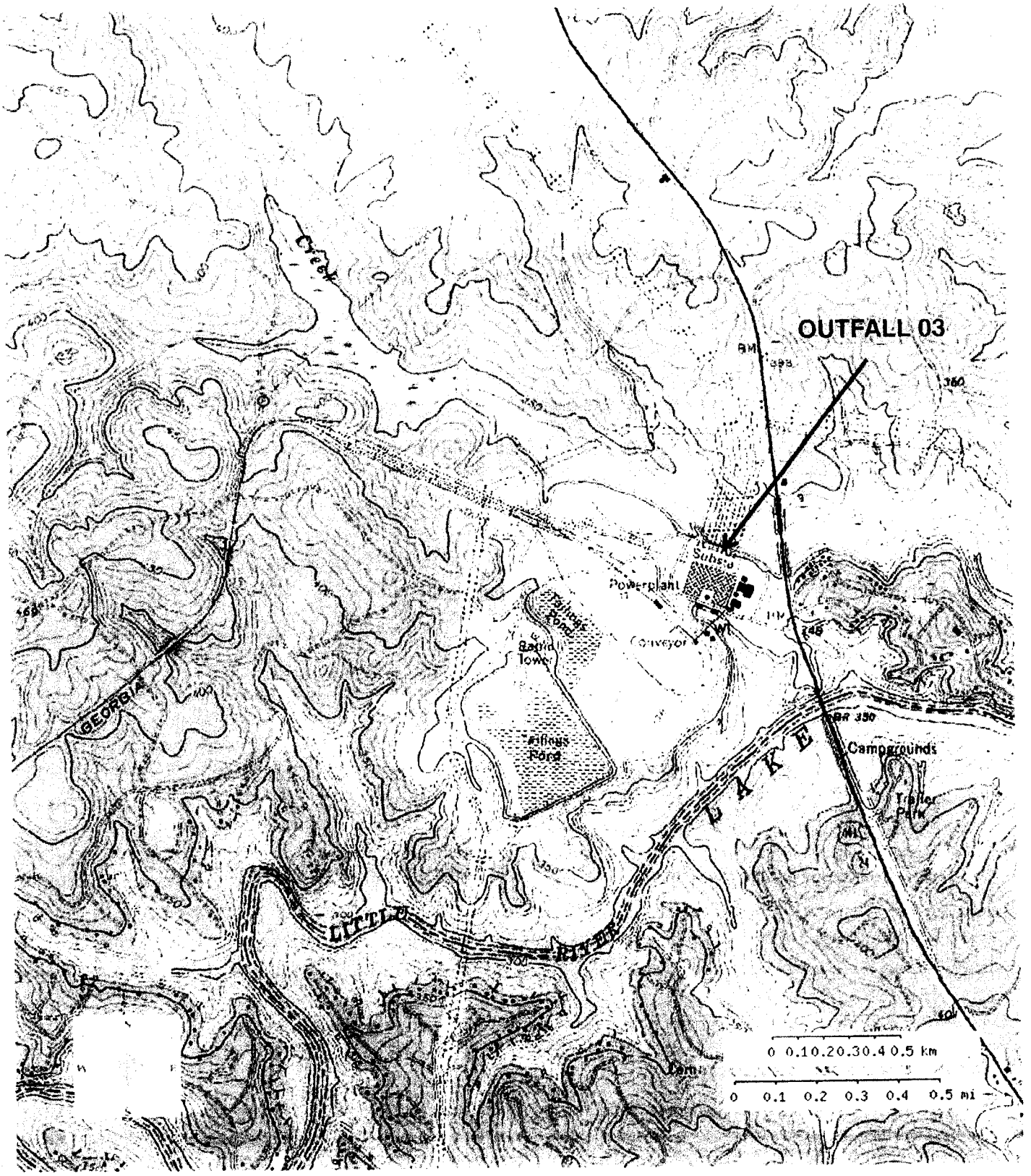
Print Name: Mark Berry, Vice President - Georgia Power Environmental Affairs	Date:
Signature of Applicant:	02/22/2017

GEORGIA POWER COMPANY
PLANT BRANCH
NPDES PERMIT NO. GA0026051

February 2017



Plant Branch
Georgia Power Company
USGS Lake Sinclair West Quadrangle
Projection: NAD83/WGS 84



Chronic Toxicity Testing Report

Plant Branch
NPDES Permit: GA0026051
1100 Milledgeville Road
Eatonton GA 31024

Test Period: April 21 through 28, 2015

Prepared for:
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STUDY ID:
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May 8, 2015

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Glossary and Abbreviations

Acute	Involving a stimulus severe enough to rapidly induce a response; in toxicity tests, a response observed in 96 hours or less typically is considered acute.
CETIS	Comprehensive Environmental Toxicity Information System (Tidepool, 2008)
Chronic	Involving a stimulus that lingers or continues for a relatively long period of time, often one-tenth of the life span or more. A chronic effect can be lethality, growth, reduced reproduction, etc.
Chronic Value	A numeric value representing the geometric mean of the numeric values of concentrations analyzed as the IC25 (No Observed Effect Concentration) and the LOEC (Lowest Observed Effect Concentration) by chronic toxicity testing. The chronic value is an estimate of the toxicant concentration that will be the actual no effect concentration based on the chronic effect tested.
Critical Value	Minimum numeric value for a toxicity test endpoint (i.e., survival, growth, or reproduction) below which a given test result will be statistically significantly different from the control value.
DMW	Diluted Mineral Water
EC	Effective concentration, a point estimate of the toxicant concentration that would cause an adverse response such as death, immobilization, or serious incapacitation.
Ft-c	Foot candles - a measure of light intensity
Graphical Method	Log concentration versus percent mortality method. Toxicity test data are plotted on 2-cycle semi-log graph paper. The logarithmic axis (y axis) is used for percent effluent concentration, and the linear axis (x axis) is used for percent mortality. The graph provides a reasonably accurate estimate of the LC_{50}, but does not provide a confidence interval.
IC	Inhibition Concentration, a point estimate of the toxicant concentration that would cause a given percent reduction in a biological measurement such as fecundity or growth.
LC	Lethal Concentration, identical to EC when the observed response is death.
LC_{50}	The toxicant concentration that is lethal to 50 percent of exposed organisms at a specific time of observation.
LCL	Lower 95% Confidence Limit
LOEC	Lowest-Observed-Effect-Concentration, the lowest concentration of toxicant to which organisms are exposed that causes adverse effects.
LWC	Lab Water Control, moderately hard synthetic freshwater prepared from MILLIPORE MILLI-Q^R water and reagent grade chemicals.

Glossary and Abbreviations

Probit Analysis	Probit Analysis consists of a group of statistical methods used to analyze data from concentration-response experiments, and provides an estimate of the LC_{50} and the precision of this estimate. In Probit Analysis, the percentages of affected organisms are converted to Probits (probability units), and the effluent concentrations are converted to logarithms. The relationship between the Probits and the logarithmic values of the concentrations is approximately linear. A Probit regression line drawn through the data points is used to estimate the LC_{50} and its precision estimate. To use Probit Analysis, at least two partial mortalities must be obtained in the toxicity test.
RWC	Receiving Water Control
UCL	Upper 95% Confidence Limit
$\mu E/m^2/s$	Micro-Einsteins per square meter per second - a measure of light intensity
USEPA	U.S. Environmental Protection Agency

Executive Summary

Amec Foster Wheeler Biology Toxicology Laboratory performed chronic toxicity testing of effluent samples from Plant Branch from April 21 through 28, 2015. Toxicity testing was conducted using the water flea (*Ceriodaphnia dubia*) and the fathead minnow (*Pimephales promelas*). Effluent samples were diluted with laboratory dilution water to five concentrations including: control (0%), 6.25%, 12.5%, 25%, 50%, and 100% effluent.

The test was conducted to satisfy the requirements of National Pollutant Discharge Elimination System (NPDES) permit number GA0026051 [NOEC value greater than or equal to 50% effluent]. The toxicity test results did not indicate chronic toxicity to the water flea or the fathead minnow for sample concentrations tested below the requirements of the permit, when statistically compared to the laboratory control. For the samples tested April 21 through 28, 2015, the NOEC values were 100% effluent for both the water flea (survival and reproduction) and fathead minnow (survival and growth).

Results are summarized in the accompanying report. All test results contained herein comply with the requirements of the National Environmental Laboratory Accreditation Conference (NELAC). The results discussed in this report relate only to the samples tested during the period April 21 through 28, 2015; samples as identified on the Chain-of-Custody form (Appendix A). Organism data is located in Appendix B; chemical and physical test data in Appendix C; and Laboratory Test Data (bench sheets) and Statistical Analyses in Appendix D.

1.0 Introduction

Amec Foster Wheeler Biology Toxicology Laboratory performed chronic toxicity testing of effluent samples from Plant Branch from April 21 through 28, 2015. Effluent samples used for this test were collected on April 20, 22, and 24, 2015. Toxicity testing was conducted using the water flea (*Ceriodaphnia dubia*) and the fathead minnow (*Pimephales promelas*). Effluent samples were diluted with laboratory dilution water to five concentrations including: control (0%), 6.25%, 12.5%, 25%, 50%, and 100% effluent.

The test was conducted to satisfy the requirements of National Pollutant Discharge Elimination System (NPDES) permit number GA0026051. All raw data related to this study are maintained at Amec Foster Wheeler, 404 SW 140th Terrace, Newberry, Florida. The Amec Foster Wheeler Biology - Toxicology Laboratory personnel, procedures, equipment, facilities, and quality system have been certified by Florida Department of Health Bureau of Laboratories as compliant with the National Environmental Laboratory Accreditation Conference (NELAC) Standards, Florida Administrative Code Rule 64-E, and are accredited by the State of Florida to perform the tests reported herein (Lab Accreditation ID E82998, effective July 1, 2014 through June 30, 2015). The results discussed in this report relate only to the samples as identified on the Chain-of-Custody form (Appendix A), tested during the period April 21 through 28, 2015. A summary of US Environmental Protection Agency (USEPA) protocol test conditions for each test method is included in Section 2.4. Test Organism data is located in Appendix B; chemical and physical test data in Appendix C; and Laboratory Test Data (bench sheets) and Statistical Analyses in Appendix D.

2.0 Materials and Methods

2.1 Test Sample

Three samples of final effluent were collected from Plant Branch by Amec Foster Wheeler personnel on April 20, 22, and 24, 2015, and shipped on ice via overnight courier to the Amec Foster Wheeler Biology Toxicology Laboratory. The sample effluent temperatures upon receipt were 1.8 °C, 1.6 °C and 1.7 °C, respectively, which meets sample acceptance criteria; samples should be received at 0 to 6 °C. The effluent fell into expected ranges for pH, salinity and dissolved oxygen. All other chemical characterization of the effluent sample upon arrival in the laboratory is provided in Table 1.

Sample chain-of-custody records and other traffic information are provided in Appendix A. Each effluent sample tested was assigned a unique sample identification number: W15-APR-PLA-042115, W15-APR-PLA-042315, and W15-APR-PLA-042515. All subsequent replicates/splits were assigned, and labeled with unique identification codes, which reflect the effluent dilution (Appendix C).

Table 1. Initial Chemical Characterization of Plant Branch , Dilute Mineral Water (DMW) used in the Chronic Toxicity Tests for *C. dubia*, and Laboratory Control Water Moderately Hard Synthetic Fresh Water (MHSFW) Used in Chronic Toxicity Tests for *P. promelas*, April 21 through 28, 2015

Parameter	100% Effluent, Unique Sample Identification Number			Control	Control
	W15-APR-PLA-042115	W15-APR-PLA-042315	W15-APR-PLA-042515	DMW[a]	MHSFW[a]
Sample Date	04/20/2015	04/22/2015	04/24/2015	NA	NA
Date Received/Made	04/21/2015	04/23/2015	04/25/2015	04/18/2015	04/24/2015
Temperature on Receipt (°C)	1.8	1.6	1.7	24.8	26
Dissolved Oxygen (mg/L)	8.1	8.3	8.2	7.9	7.8
pH	6.9	7.7	7.3	8.2	7.4
Total Alkalinity as CaCO3 (mg/L)	239	29	44	44	41
Total Hardness as CaCO3 (mg/L)	303	308	288	78	69
Conductivity @25°C (µS/cm)	758	952	728	375	535
Residual Chlorine (mg/L)[c]	0.12	0.04	0.09	-	-
Ammonia-Nitrogen NH3-N (mg/L)[d]	0.05	0.17	0.12	-	-

Source: Amec FW, 2015 Prepared by: PSB Checked by: SAM
Unless otherwise noted, all chemical analyses determined according to EPA 600/4-79-020.
[a] Laboratory control water, DMW and MHSFW
[b] N/A=Not Applicable
[c] Determined by Hach Spectrophotometer at 25°C; SM 4500-CL G
[d] Determined by Hach Spectrophotometer at 25°C; SM 4500-NH3 B & C

2.2 Dilution Water

The water used for control and sample dilutions during the test was dilute mineral water (DMW) for the *C. dubia* and moderately hard synthetic fresh water (MHSFW) for the *P. promelas*. The dilution water was allowed to equilibrate to test temperature prior to use in testing.

2.3 Test Organisms

The test organisms were neonate *C. dubia* (less than 24 hours old) obtained from in-house cultures, and neonate *P. promelas* (less than 24 hours old) obtained from Hydrosphere. All organisms appeared to be in normal condition (i.e., eating and swimming normally) at test initiation. During holding (2 hours prior to test initiation) and on days 1 through 6, *C. dubia* were fed 0.1 milliliters (mL) of yeast/trout chow/cereal leaves mixture and 0.1 mL of *Selenastrum* concentrate (green algae); and *P. promelas* were fed approximately 2 mL of newly hatched (less than 24-hr old) brine shrimp nauplii on day 0, and approximately 0.2 mL newly hatched (less than 24-hr old) brine shrimp nauplii on days 1 through 6.

2.4 Test Methods

The chronic toxicity test was performed according to the procedures described in "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms," US Environmental Protection Agency (USEPA)-821-R-02-013, Test Methods 1002.0 and 1000.0 (USEPA, 2002) and is in compliance with NELAC standards. Test conditions for the chronic test are presented in Tables 2 and 3.

Table 2. Summary of Toxicity Test Conditions for the Water Flea, *Ceriodaphnia dubia*, Survival and Reproduction Test [EPA-821-R-02-013, Test Method 1002.0 (EPA, 2002)]

Test type	Static renewal definitive
Temperature	25±1°C (Recommended) Test temperatures must not deviate (maximum-minimum temperature) by more than 3°C during the test (required)
Light quality	Ambient laboratory illumination
Light intensity	10-20 µE/m2/s (50-100 ft-c) (ambient laboratory levels)
Photoperiod	16-hr light, 8-hr dark
Test chamber size	30 mL
Volume of test solution	15 mL/replicate
Renewal of test concentrations	Daily
Age of organisms	Newly hatched neonates less than 24 hours old
No. of neonates per test chamber	1
No. of replicate chambers per concentration	10
No. of neonates per concentration	10
Feeding regime	Fed 0.1 mL each of YCT and algae suspension per test chamber daily
Aeration	None
Dilution water	Dilute mineral water prepared using DI water and 20% Perrier
Effluent concentrations	Control, 6.25%, 12.5%, 25%, 50%, and 100% effluent
Dilution factor	0.5
Test duration	7±1 days, when at least 60% of control females had 3 broods
Effect measured	Survival and reproduction
Test acceptability	80% or greater survival in controls; Average of 15 or more young per surviving female in the control solutions. At least 60% of surviving females in controls should have produced their third brood
Sampling requirement	Samples are collected daily, and used within 36 hrs of the time they are removed from the sampling device
Sample volume required	1 L per day

Reference: EPA-821-R-02-013, Fifth Edition, October 2002.
Source: Amec FW, 2015

Table 3. Summary of Toxicity Test Conditions for the Fathead Minnow, *Pimephales promelas*, Larval Survival and Growth Test. (EPA-821-R-02-013, Test Method 1000.0 [EPA, 2002])

Test type	Static renewal
Temperature	25±1°C (Recommended) Test temperatures must not deviate (maximum-minimum temperature) by more than 3°C during the test (required)
Light quality	Ambient laboratory illumination
Light intensity	10-20 µE/m2/s (50-100 ft-c) (ambient laboratory levels)
Photoperiod	16-hr light, 8-hr dark
Size of test vessel	600 mL
Volume of test solution	250 mL/replicate
Renewal of test concentrations	Daily
Age of organisms	Newly hatched larvae less than 48 hrs old
No. of larvae per test chamber	10
No. of replicate chambers per concentration	4
No. of larvae per concentration	40
Feeding regime	Fed approximately 0.2 mL newly hatched (less than 24-hr old) brine shrimp nauplii two times per day. Larvae are not fed during the final 12-hr of the test.
Cleaned	Siphoned daily, immediately before test solution renewal
Aeration	None (DO concentration did not fall below 40% saturation)
Dilution water	Moderately hard synthetic water prepared using DI water and reagent grade chemicals
Effluent concentrations	Control, 6.25%, 12.5%, 25%, 50%, and 100% effluent
Dilution factor	0.5
Test duration	7 days
End points	Survival and growth (dry weight)
Test acceptability	80% or greater survival in controls; Average dry weight of surviving controls equals or exceeds 0.25 mg
Sampling requirement	A minimum of three composite samples are collected
Sample volume required	2.5 L per day

Reference: EPA-821-R-02-013, Fifth Edition, October 2002.
Source: Amec FW, 2015

2.5 Test Concentrations

2.5.1 Water Flea

The concentrations used for the chronic definitive test were 0% (dilution water control), 6.25%, 12.5%, 25%, 50%, and 100% effluent. Test solutions were prepared by combining effluent sample with dilution water on a volumetric basis. Test vessels used for the chronic tests were 30 mL plastic cups containing 15 mL of test effluent or control water for *C. dubia*. One *C. dubia* was placed in each of the 10 replicate vessels per concentration.

2.5.2 Fathead Minnow

The concentrations used for the chronic definitive test were 0% (dilution water control), 6.25%, 12.5%, 25%, 50%, and 100% effluent. Test solutions were prepared by combining effluent sample with dilution water on a volumetric basis. Test vessels used for the chronic tests were 600 mL beakers containing 250 mL of test effluent or control water for *P. promelas*. The test organisms were randomly distributed in the test vessels. Ten *P. promelas* were placed in each of four replicate vessels per concentration.

2.6 Monitoring of Toxicity Tests

The test was monitored at test initiation and daily thereafter for mortality, temperature, dissolved oxygen, pH, and conductivity. Before test initiation, salinity and pH values were measured and recorded in the sample receipt log for the undiluted test sample.

2.7 Quality Control (Reference Toxicant Tests)

A chronic reference toxicant test using sodium chloride (NaCl) as the reference toxicant was conducted to evaluate the sensitivity of the test organisms for the chronic tests. The test concentrations were 0 (control), 0.125, 0.25, 0.5, 1, 2, and 4 grams (g) NaCl/L for *C. dubia*; and 0 (control), 0.75, 1.5, 3, 6 and 12 g NaCl/L for *P. promelas*. The test conditions for the organisms in the reference toxicant test were the same as for the effluent test.

2.8 Statistical Analysis

For the chronic toxicity and reference toxicant tests, IC25 values and their 95 percent confidence limits were estimated by computer program, Comprehensive Environmental Toxicity Information System, CETIS (Tidepool, 2008).

3.0 Results and Discussion

Chemical and physical data associated with the test sample material can be found in Appendix C. The results of the chronic toxicity tests conducted with *C. dubia* and *P. promelas* are reflected in Tables 4 and 5.

3.1 Results of Chronic Toxicity Test Conducted with Water Flea

The toxicity test results did not indicate chronic toxicity to the water flea for sample concentrations tested below the requirements of the permit, when statistically compared to the laboratory control. For the samples tested April 21 through 28, 2015, the NOEC values for survival and reproduction are both 100% effluent. The results of the control exposures met the test acceptability requirements (USEPA, 2002): (1) ≥ 80% survival; 2) ≥ an average of 15 neonates per surviving female; and (3) ≥ 60% of surviving females produced three broods.

The test solutions were not aerated at any time during the test. Water quality values remained within acceptable limits during the test period. Copies of the relevant laboratory raw data pertaining to the acute tests are provided in Appendix B.

Table 4. Survival and Reproduction Data for *C. dubia* Exposed for Seven Days[a] to Plant Branch Effluent, April 21 through 28, 2015

Test Exposures (% Total Effluent)	Survival of All Organisms per Test Exposure (%)	Reproduction (Mean # of neonates per surviving female)
0, Control[(b)]	90	17.7
6.25	90	17.5
12.5	90	17.8
25	100	17.8
50	90	14.7
100	90	17.7
NOEC (% Effluent)	**100**	**100**

Source: Amec FW, 2015 Prepared by: PSB Checked by: SAM
[(a)] The three brood *Ceriodaphnia dubia* test typically lasts 6 to 8 days.
[(b)] Laboratory Water Control; Diluted Mineral Water Batch #PD2015-8

3.2 Results of Chronic Toxicity Test Conducted with Fathead Minnow

The effluent samples from Plant Branch were determined to not be chronically toxic to *P. promelas* survival and growth (Table 5) based on the results of the chronic toxicity test. The surviving *P. promelas* demonstrated normal activity (normal movement) in effluent solutions throughout the test period. Based on the chronic toxicity test results, the NOEC values for survival and growth are both 100% effluent. The results of the Control exposures met the test acceptability requirements (USEPA, 2002): (1) ≥ 80% survival; (2) average dry weight per surviving organism ≥ 0.2 milligrams.

The test solutions were not aerated at any time during the test. Water quality values remained within acceptable limits during the test period. Copies of the relevant laboratory raw data pertaining to the acute tests are provided in Appendix B.

Table 5. Survival and Growth Data for *P. promelas* Exposed for Seven Days to Plant Branch Effluent, April 21 through 28, 2015

Test Exposures % Total Effluent	Survival of All Organisms per Test Exposure (%)	Growth[a] (mg)
0, Control[b]	92.5	1.06
6.25	100	1.13
12.5	97.5	1.13
25	97.5	1.07
50	97.5	1.16
100	95	0.97
NOEC (% Effluent)	**100**	**100**

Source: Amec FW, 2015 Prepared by: PSB Checked by: SAM
[a] Mean dry weight per original number of fish at test initiation, excluding those that were accidentally killed or missing.
[b] Laboratory Water Control, Moderately Hard Synthetic Freshwater Batch# MHW20150424

3.3 Quality Control

Ceriodaphnia dubia, NaCl Reference Toxicant, RT7DCD20150414, 04/14/2015
Reproduction: 7-day IC25 = 821 mg NaCl/L **(Acceptable)**
7-day IC25 Range of Acceptability = 195 to 1,747 mg NaCl/L

Pimephales promelas, NaCl Reference Toxicant, RT7DPP20150421, 04/21/2015
Growth: 7-day IC25 = 3,480 mg/ NaCl/L **(Acceptable)**
7-day IC25 Range of Acceptability = 1,794 to 4,634 mg NaCl/L

4.0 Conclusion

Amec Foster Wheeler conducted a chronic definitive toxicity test beginning on April 21, 2015 and terminated on April 28, 2015, with a sample of final effluent from Plant Branch. The test was conducted to satisfy the requirements of NPDES permit number GA0026051 (NOEC values greater than or equal to 50% effluent).

The toxicity test results did not indicate chronic toxicity to the water flea or the fathead minnow for sample concentrations tested below the requirements of the permit, when statistically compared to the laboratory control. For the samples tested April 21 through 28, 2015, the NOEC values were 100% effluent for both the water flea and fathead minnow.

5.0 References

Tidepool Scientific Software. 2008. CETIS, Comprehensive Environmental Toxicity Information System. Version 1.7.0 Revision S.

U.S. Environmental Protection Agency. 1979. Methods for Chemical Analysis of Water and Wastes. Environmental Monitory Laboratory, U.S. Environmental Protection Agency, Cincinnati, OH. EPA 600-4-79/020.

U.S. Environmental Protection Agency. 2002. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. Fourth Edition. Office of Water (4303T), U.S. Environmental Protection Agency, Washington, DC. EPA-821-R-02-013.

APPENDIX A

Chain of Custody Records

Biology Toxicology Laboratory
404 SW 140th Terrace
Newberry, FL 32669
Telephone (352) 332 3318

Revised Feb 2012

SAMPLE CHAIN OF CUSTODY

Facility: PLANT BRANCH

Location/Address (including county): MILLEDGEVILLE, PUTNAM COUNTY, GEORGIA

Permit Number: Outfall Number:

SAMPLE INFORMATION

Sample Identification	Sample Type Grab or Composite?	Start & End Date	Start & End Time	Water Quality Upon Arrival in AMEC Lab: Temp °C	pH	D.O mg/L	
~~ASH POND B DISCHARGE~~							
ASH POND B DISCHARGE	COMPOSITE	4-19-15 4-20-15	1220 1220	1.8	8.1	6.9	
Total Number of Samples							

PB 4/21/15

SAMPLE INFORMATION

Sampler(s): EVER GUILLEN /

Sampling Point (Description)

Water Quality Measurements at Facility (optional):
Temp: pH: Diss. Oxygen: Salinity/Cond.: Chlorine (TRC):

Water Quality Measured by: Date: Time:

Observations/Remarks:

CHAIN OF CUSTODY

Relinquished By:	Received By:	Date	Time
		4/20/15	1500

SAMPLE ACCEPTANCE POLICY AND SAMPLING INSTRUCTIONS ON REVERSE SIDE

Biology-Toxicology Laboratory
404 SW 110th Terrace
Newberry, FL 32669
Telephone (352) 332-3318

SAMPLE CHAIN OF CUSTODY

Facility: PLANT BRANCH

Location/Address (including county): MILLEDGEVILLE, PUTNAM COUNTY, GEORGIA

Permit Number: Outfall Number

SAMPLE INFORMATION

Sample Identification	Sample Type Grab or Composite?	Start & End Date	Start & End Time	Water Quality Upon Arrival in AMEC Lab: Temp °C	pH	D.O mg/L	
ASHPOND B DISCHARGE	COMPOSITE	4-21-15 11 30	4-22-15 11 30	1.6	7.7	8.3	
Total Number of Samples							

SAMPLE INFORMATION

Sampler(s): EVER GUILLEN /

Sampling Point (Description)

Water Quality Measurements at Facility (optional):

Temp: pH: Diss. Oxygen: Salinity/Cond.: Chlorine (TRC):

Water Quality Measured by: Date: Time:

Observations/Remarks

CHAIN OF CUSTODY

Relinquished By:	Received By:	Date	Time
		4/22/15	1330

SAMPLE ACCEPTANCE POLICY AND SAMPLING INSTRUCTIONS ON REVERSE SIDE.

Biology Toxicology Laboratory
404 SW 140th Terrace
Newberry, FL 32669
Telephone (352) 332-3318

Revised Feb 2012

SAMPLE CHAIN OF CUSTODY

Facility PLANT BRANCH

Location/Address (including county): MILLEDGEVILLE, PUTNAM COUNTY, GEORGIA

Permit Number

Outfall Number

SAMPLE INFORMATION

Sample Identification	Sample Type Grab or Composite?	Start & End Date	Start & End Time	Water Quality Upon Arrival in AMEC Lab: Temp °C	pH	D.O mg/L	
ASH POND B DISCHARGE	COMPOSITE	4-23-15 4-24-15	1130 1130	17	7.3	8.2	
Total Number of Samples							

SAMPLE INFORMATION

Sampler(s) EVER GUILLEN / [signature]

Sampling Point (Description)

Water Quality Measurements at Facility (optional):

Temp pH Diss Oxygen Salinity/Cond Chlorine (TRC)

Water Quality Measured by Date Time

Observations/Remarks

CHAIN OF CUSTODY

Relinquished By	Received By	Date	Time
[signature]			
	[signature]		

4/25/15

SAMPLE ACCEPTANCE POLICY AND SAMPLING INSTRUCTIONS ON REVERSE SIDE

1300

APPENDIX B

Test Organism Documents

Amec Foster Wheeler
Biology Toxicology Laboratory

***Ceriodaphnia dubia* In-house Culture Source Document**

Brood Board ID No.	Brood Board Date	Age of Test Organisms	Water Type/Temp. (°C)	Food Type
CD20150413	04/21/2015	< 24-hrs	DMW / 24.8	YCT & *Selenastrum*

***Pimephales promelas* Culture Source Document**

Larvae Batch ID No.	Source	Hatch Date	Age of Test Organisms	Water Type/Temp. (°C)	Food Type
2015-23	Hydrosphere	04/20/2015	< 24-hrs	MHW/ 26	*Artemia*

APPENDIX C

Chemical and Physical Data

AMEC Toxicology Laboratory
Newberry, Florida

AMEC QA Form Number: 011A
Revised: April 8, 2014

EFFLUENT/SEDIMENT RECEIPT AND USAGE LOG

Test Material: Effluent Project No.: 0123150089.02

Sponsor: Plant Branch Receipt Date: 4/21/15

Type and Number of Containers: 2 1-gallon containers

Mode of Transport (check one): ___ Mail ___ Hand ☒ Courier: ☒FedEx ☐UPS ☐Other: _____

Shipping tracking number: 8731 2631 6162

Preserved on Ice Y Chain-of-Custody Tape Intact: Y (Composite) or Grab _____

Information: _____

INITIAL TEST MATERIAL CHARACTERISTICS

Client Sample ID:				
AMEC Unique ID:	W15	APR	PLA	042115
Temperature (°C):	1.8			
Conductivity (uS/cm)/Salinity (ppt):	758			
pH (standard units):	~~7.9~~ 6.9	PB	4/21/15	
Dissolved Oxygen (mg/L):	8.1			
Total Residual Chlorine (mg/L): Zero: 0.00	0.12			
Ammonia (mg/L as N): Zero: 0.00	0.05			
Alkalinity (mg/L of CaCO3):	239.12			
Hardness (mg/L of CaCO3):	303.03			

Sample Used Upon Receipt (Y/N): Y

Storage: Fridge ~~#1~~ 2 4°±2°C

Appearance of sample (i.e. turbid, color, etc.) _____ (Optional)

Date/Time Recorded 4/21/15 1500 Sample Custodian: Paul Bellat

TEST MATERIAL USAGE

Date	Amount	Purpose	Storage	Initials

Test Material Discarded On: _____

Reviewed By: PB Date: 4/23/15 By: _____

AMEC Toxicology Laboratory
Newberry, Florida

AMEC QA Form Number: 011A
Revised: April 8, 2014

EFFLUENT/SEDIMENT RECEIPT AND USAGE LOG

Test Material: Effluent Project No.: 6123150089.02

Sponsor: Plant Branch Receipt Date: 4/23/15

Type and Number of Containers: 2 1-gallon containers

Mode of Transport (check one): ___ Mail ___ Hand X Courier: X FedEx ☐UPS ☐Other: ___

Shipping tracking number: 8731 2691 6173

Preserved on Ice: Y Chain-of-Custody Tape Intact: Y Composite or Grab: ___

Information: ___

INITIAL TEST MATERIAL CHARACTERISTICS

Client Sample ID:				
AMEC Unique ID:	W15	APR	PLA	042315
Temperature (°C):	1.6			
Conductivity (uS/cm;):/Salinity (ppt):	952			
pH (standard units):	7.7			
Dissolved Oxygen (mg/L):	8.3			
Total Residual Chlorine (mg/L): Zero: 0.00	0.04			
Ammonia (mg/L as N): Zero: 0.00	0.17			
Alkalinity (mg/L of CaCO3).	29.4			
Hardness (mg/L of CaCO3):	307.72			

Sample Used Upon Receipt (Y/N): Y

Storage: Fridge# 01 & 2 4°±2°C

Appearance of sample (i.e. turbid, color, etc) ___ (Optional)

Date/Time Recorded: 4/23/15 Sample Custodian: [signature]

TEST MATERIAL USAGE

Date	Amount	Purpose	Storage	Initials

Test Material Discarded On: ___ By: ___
Reviewed By: PB Date: 5/1/15

AMEC Toxicology Laboratory
Newberry, Florida

AMEC QA Form Number: 011A
Revised: April 8, 2014

EFFLUENT/SEDIMENT RECEIPT AND USAGE LOG

Test Material: Effluent Project No: 6123150089.02

Sponsor: Plant ~~City~~ Branch Receipt Date: 4/25/15

Type and Number of Containers: 3, 1 gallon jugs

Mode of Transport (check one): ___ Mail ___ Hand ___ Courier: ☑FedEx ☐UPS ☐Other: ___

Shipping tracking number: 873126911684

Preserved on Ice: ✓ Chain-of-Custody Tape Intact: ✓ Composite or Grab: ___

Information:

INITIAL TEST MATERIAL CHARACTERISTICS

Client Sample ID:				
AMEC Unique ID:	WIS-APR-PLA-042515			
Temperature (°C):	1.7			
Conductivity (uS/cm;):/Salinity (ppt):	725			
pH (standard units):	7.3			
Dissolved Oxygen (mg/L):	8.2			
Total Residual Chlorine (mg/L): Zero: 0.00	0.09			
Ammonia (mg/L as N): Zero: 0.00	0.12			
Alkalinity (mg/L of CaCO3):	44.1			
Hardness (mg/L of CaCO3):	288.12			

Sample Used Upon Receipt (Y/N): Y

Storage: Fridge# ☑1 ☐2 4°±2°C

Appearance of sample (i.e. turbid, color, etc.) clear (Optional)

Date/Time Recorded: 4/25/15 1300 Sample Custodian: [signature]

TEST MATERIAL USAGE

Date	Amount	Purpose	Storage	Initials

Test Material Discarded On: ___ By: ___

Reviewed By: [signature] Date: 5/1/15

APPENDIX D

Effluent and Reference Toxicant Test Data Sheets

Project Number: 6123150089.02 Client: Plant Branch Test: 7 day Chronic *P. promelas* and *C. dubia*

DAILY LOG

4/21/15 Received and warmed sample, made dilutions, loaded test, fed orgs, WQ, PB

4/22 warmed sample, made dilutions, renewed test, monitored orgs & WQs, fed JH & KK

4/23 received/warmed/checked in sample, made dilutions, renewed test, monitored orgs & WQs, fed JH & KK

4/24 warmed sample/ made dilutions/ renewed test/ Fed AM+PM/ WQs KK

4/25 recieved sample/ warmed/ Made dilutions/ renewed Tests/ Fed AM+PM/ WQs KK/JH

4/26 Warmed sample/ Made Dilution/ renewed test/ Fed AM+PM /WQs KK

4/27 warmed sample/ made dilutions/ renewed tests/ Fed AM+PM/ WQs KK

4/28/15 took down test, WQs AN

Water Flea
Effluent Test Data Sheets

Amec Foster Wheeler
Newberry, Florida

Revised: March 2015

SUBJECT: CERIODAPHNIA CHRONIC TEST - COVER

Client: Plant Branch

Project Number: 6123150089.02

Test Substance: WWTP Effluent

Test Species: *Ceriodaphnia dubia*

ANIMAL HISTORY

LOT NUMBER: CD20150413

Date Neonates Collected: 4/21/15

See Page NA of Cladoceran Neonate History Log

Age of Neonates (hours): <24 hours

Condition of Neonates: Good

TEST CONDITIONS

Test Protocol: EPA-821-R-02-013 1002.0

Dilution Water: 20%Perrier/80%MilliQ

Dilution Water Batch Number: PD20150-8

Type Lighting: Fluorescent

Photoperiod: 16 light/8 dark

Test Container: 30 millileter(mL) Plastic Cup

Solution Volume: 15 mL

Replicates per Concentration: 10

Organisms per rep: 1

Test Temperature: 25 ± 1 °C

WaterBath/ Incubator

TEST SOLUTION PREPARATION

TEST CONCENTRATION % g/L	Control	6.25	12.5	25	50	100	
Volume of Effluent / Stock Added (ml)	200	12.5	25	50	100	200	
Volume of dilution Water Added (ml)	---	187.5	175	150	100	0	

TEST VALIDITY CRITERIA.

Percent of Surviving Female Adults with 3 Broods in Control:

Percent Survival of Control Adults: 90%

Mean Number of Neonates per Adult Female in Control: 17.7

TEST SUMMARY

Test Concentration (%)	Number of Neonates	Number of Broods	Adult C. dubia No. Alive	Adult C. dubia No Dead	Number of Males	Neonates Per Adult	Brood per Adult
Control	177		9	1		17.7	
6.25 PB 5/6/15	1705		9	1		17.5	
12.5	178		9	1		17.8	
25	178		10	0		17.8	
50 PB 5/6/15	1487		9	1		14.87	
100	177		9	1		17.7	

PB 5/6/15

Additional Comments:

TEST DATA RECORDED BY PB DATE: 4/30/15

TEST SUMMARY RECORDED BY PB DATE: 4/30/15

Amec Foster Wheeler
Newberry, FL

QA Form: 106G
Revised: March 2015

DAILY FEEDING LOG

Client: Plant Branch
Test Substance: WWTP Effluent

Project Number: 6123150089.02
TEST SPECIES: *C.dubia*

TEST DAY	DATE	TIME	INITIALS	FOOD TYPE	QUANTITY	COMMENTS
In Holding Day 0	4/21/15	0900	AN	SC	0.1 ml	Feed in holding
				YTC	0.1 ml	
After Loading Day 0	4/21/15	1500	PB	SC	0.1 ml	Feed after loading
				YTC	0.1 ml	
Day1	4/22/15	1115	KK	SC	0.1 ml	Feed after daily renewal
				YTC	0.1 ml	
Day2	4/23/15	1620	[illegible]	SC	0.1 ml	Feed after daily renewal
				YTC	0.1 ml	
Day3	4/24/15	1200	KK	SC	0.1 ml	Feed after daily renewal
				YTC	0.1 ml	
Day4	4/25/15	1445	KK	SC	0.1 ml	Feed after daily renewal
				YTC	0.1 ml	
Day5	4/26/15	1230	KK	SC	0.1 ml	Feed after daily renewal
				YTC	0.1 ml	
Day6	4/27/15	1240	KK	SC	0.1 ml	Feed after daily renewal
				YTC	0.1 ml	

BS = Brine Shrimp nauplii YTC = Yeast/Trout Chow/Cereal Leaves
Algae = Green Algae (*Selenastrum capricornutum*)

SUBJECT:DUBIA CHRONIC TEST - WATER QUALITY

Client: Plant Branch — **Project Number: 6123150089.02**

Test Substance: WWTP Effluent — **Test Species: Ceriodaphnia dubia**

Test Conc %	Parameter	Day 0	Day 1 Old	Day 1 New	Day 2 Old	Day 2 New	Day 3 Old	Day 3 New	Day 4 Old	Day 4 New	Day 5 Old	Day 5 New	Day 6 Old	Day 6 New	Day 7
CTRL (0)	Temp (°C)	25.3	25.4		25.0		24.8		24.4		25.1		24.0		25.7
	pH (su)	8.1	7.2		8.1		7.3		8.1		7.5		7.5		7.3
	DO (mg/L)	7.9	7.4	7.6	7.6	8.2	7.8	7.7	7.1	7.6	7.4	8.0	7.7	7.7	6.6
	Alkalinity (mg of CaCO3)	44													
	Hardness (mg of CaCO3)	78													
	Conductivity (umhos/cm)	375													
6.25	Temp (°C)	25.6	25.0		25.1		24.8		24.3		25.4		24.0		25.6
	pH (su)	8.0	7.3		8.1		7.6		8.0		7.7		7.5		7.4
	DO (mg/L)	8.0	7.4	7.6	7.6	8.2	7.8	7.7	7.1	7.6	7.5	7.7	7.5	7.7	6.7
12.5	Temp (°C)	25.6	24.8		25.1		24.7		24.2		24.9		24.0		25.3
	pH (su)	8.0	7.3		8.1		7.6		8.0		7.8		7.6		7.4
	DO (mg/L)	7.8	7.5	7.6	7.5	8.2	7.8	7.8	7.1	7.6	7.8	7.7	7.5	7.8	6.7
25	Temp (°C)	25.6	24.7		25.0		24.7		24.3		24.8		24.0		25.2
	pH (su)	8.0	7.3		8.1		7.6		7.9		7.8		7.6		7.4
	DO (mg/L)	8.0	7.3	7.6	7.5	8.1	7.9	7.8	7.2	7.6	7.8	7.7	7.4	7.8	6.8
50	Temp (°C)	25.5	24.8		25.0		24.5		24.3		25.0		23.8		25.3
	pH (su)	7.9	7.3		8.1		7.5		7.8		7.6		7.6		7.3
	DO (mg/L)	8.1	7.4	7.7	7.5	8.1	7.9	7.9	7.1	7.8	7.5	7.9	7.6	8.0	6.8
100	Temp (°C)	25.6	24.8		25.1		24.5		24.6		25.1		23.7		25.4
	pH (su)	7.8	7.2	6.8	8.0	7.9	7.4	7.5	7.8	7.9	7.5	~~8.0~~	7.5	7.5	7.3
	DO (mg/L)	8.1	7.4	7.7	7.5	8.1	7.9	7.9	7.2	7.8	7.7	8.0	7.5	8.1	7.0
	Alkalinity (mg of CaCO3)	239													
	Hardness (mg of CaCO3)	303													
	Conductivity (umhos/cm)	758													
WQ in New Sample															
100% (new sample)	Alkalinity (mg of CaCO3)	239				29				44					
	Hardness (mg of CaCO3)	303				308				288					
	Conductivity (umhos/cm)	758				952				728					
Thermocouple		FS16	FS16		FS16		FS16		FS16		FS16		FS16		FS16
pH Meter		pH3	pH3		pH3		pH3		pH3		pH3		PH3		pH3
DO Meter		DO6	DO6		DO6		DO6		DO6		DO6		DO6		DO6
Conductivity Meter		SCT5			SCT5				SCT5						
INITIALS:		PB	PB		[illegible]		KL		[illegible]		KL		SS		[illegible]
DATE:		4/21/15	4/22/15		4/23/15		4/24/15		4/25/15		4/26/15		4/27/15		4/28/15
TIME:		1605	1400		1650		1200		1500		1200		1315		1700

Temp = Temperature DO = Dissolved Oxygen su = standard units Conductivity reported as umhos cm

KL
4/26/15

Amec Foster Wheeler
Newberry, Florida

Revised: March 2015

SUBJECT: CERIODAPHNIA CHRONIC TEST - SURVIVAL

Client: Plant Branch
Test Substance: WWTP Effluent
Project Number: 6123150089.02

Test Species: Ceriodaphnia dubia

Test Conc %	Day	A AD	A N	B AD	B N	C AD	C N	D AD	D N	E AD	E N	F AD	F N	G AD	G N	H AD	H N	I AD	I N	J AD	J N
Control 0	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	1	1	2	1	2	1	1	1	2	1	0
	4	1	2	1	0	1	3	1	2	1	0	1	1	1	2	1	0	1	0	1	0
	5	1	7	1	7	1	5	1	5	1	6	1	5	1	0	1	5	1	7	1D	
	6	1	4	1	2	1	1	1	5	1	5	1	2	1	10	1	9	1	8		
	7	1	2	1	8	1	11	1	8	1	8	1	10	1	15	1	21	1	11	X	0
			15		17		20		20		20		20		29		15		21	X	0
6.25	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	0	1	3	1	2	1	4	1	2	1	0
	4	1	4	1	0	1	3	1	4	1	0	1	0	1	0	1	1	1	1	1	1
	5	1	4	1	5	1	0	1	6	1	7	1	7	1D		1	5	1	1	1	0
	6	1	0	1	5	1	5	1	8	1	9	1	6			1	8	1	7	1	7
	7	1	12	1	1	1	6	1	1	1	9	1	10			1	14	1	20	1	11
			20		~~7~~ 11		14		19		25		16	X	2		18		~~30~~	31	19
12.5	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1D	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	0	1	0			1	0	1	3		10
	4	1	3	1	1	1	2	1	3	1	0	1	0			1	0	1	0	1	3
	5	1	3	1	4	1	4	1	2	1	1	1	1			1	4	1	2	1	1
	6	1	0	1	4	1	6	1	7	1	8	1	10			1	9	1	8	1	5
	7	1	11	1	2	1	2	1	11	1	7	1	17			1	14	1	9	1	10
			17		11		15		23		16		28	X	0		27		22		19

TEST DAY	0	1	2	3	4	5	6	7
INITIALS	PB	KK	[illegible]	KK	KK	KK	KK	AN
DATE	4/21/15	4/22/15	4/23/15	4/24/15	4/25/15	4/26/15	4/27/15	4/28/15
TIME	1450	1100	1605	1200	1430	1230	1230	1145

PB 5/6/15

A = Alive D = Dead N = Neonates (number of neonates recorded for day observed; not cumulative)

MACTEC, Inc.
Newberry, Florida

QA Form Number: 054
Revised: March 2001

SUBJECT: CERIODAPHNIA CHRONIC TEST - SURVIVAL

Client: Plant Branch
Test Substance: WWTP Effluent
Project Number: 6123150089.02

Test Species: Ceriodaphnia dubia

Test Conc	Day	A AD	A N	B AD	B N	C AD	C N	D AD	D N	E AD	E N	F AD	F N	G AD	G N	H AD	H N	I AD	I N	J AD	J N
25	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	3	1	0	1	1	1	1	1	0	1	0
	4	1	1	1	0	1	5	1	5	1	0	1	2	1	5	1	0	1	0	1	0
	5	1	4	1	4	1	5	1	7	1	8	1	0	1	0	1	4	1	4	1	0
	6	1	5	1	4	1	5	1	4	1	7	1	3	1	4	1	6	1	7	1	10
	7	1	2	1	2	1	1	1	0	1	12	1	15	1	13	1	7	1	10	1	14
			12		10		16		16		18		20		23		18		21		24
50	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3	1	2	1	0	1	0	1	0	1	2	1	1	1	1	1	3	1	2	1	0
	4	1	0	1	0	1	3	1	2	1	1	1	5	1	2	1	0	1	0	1	0
	5	1	2	1	3	1	6	1	5	1	2	1D		1	0	1	3	1	5	1	4
	6	1	8	1	0	1	5	1	6	1	6			1	8	1	10	1	10	1	0
	7	1	2	1	14	1	6	1	0	1	8			1	3	1	4	1	20	1	2
			15		17		20		13		19	X	6		14		20		17		6
100	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	1	1	3	1	4	1	2	1	0	1	0
	4	1	1	1	3	1	6	1	0	1	0	1	0	1	0	1	0	1	1	1	3
	5	1	8	1	8	1	6	1	3	1	5	1	4	1	6	1D		1	6	1	3
	6	1	2	1	6	1	7	1	0	1	6	1	5	1	5			1	4	1	2
	7	1	9	1	2	1	3	1	13	1	3	1	18	1	9			1	0	1	10
			20		19		22		16		15		30		24	X	2		11		18
TEST DAY		0		1		2		3		4		5		6		7					
INITIALS				KK		JA		KK		KK		KK		KK		AN					
DATE				4/22/15		4/23		4/24/15		4/25/15		4/26/15		4/27/15		4/28/15					
TIME				1100		1600		1200		1430		1230		1230		1145					

AN 4/28/15

AN 4/28/15

A = Alive D = Dead N = Neonates (number of neonates removed for day observed, not cumulative)

CETIS Summary Report

Report Date: 08 May-15 15:17 (p 1 of 1)
Test Code: 20-7586-3118/W15-APR-PLA-CD

Cladoceran 7-d Survival and Reproduction Test — **AMEC Biology-Toxicology LAB**

Batch ID:	10-4421-8756	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	
Start Date:	21 Apr-15	**Protocol:**	EPA/600/4-91/002 (1994)	**Diluent:**	Dilute Mineral Water
Ending Date:	28 Apr-15	**Species:**	Ceriodaphnia dubia	**Brine:**	Modified GP2
Duration:	7d 0h	**Source:**	In-House Culture	**Age:**	<24h

Sample ID:	06-6502-1829	**Code:**	27A36D85	**Client:**	Plant
Sample Date:	20 Apr-15	**Material:**	WWTP	**Project:**	6123150089.02
Receive Date:	21 Apr-15	**Source:**	Plant Branch		
Sample Age:	24h	**Station:**			

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
13-2497-7485	7d Survival Rate	100	>100	N/A	N/A	1	Fisher Exact/Bonferroni-Holm Test
00-5584-7547	Reproduction	100	>100	N/A	40.0%	1	Steel Many-One Rank Test

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
13-2497-7485	7d Survival Rate	Control Resp	0.9	0.8 - NL	Yes	Result Within Limits
00-5584-7547	Reproduction	Control Resp	17.7	15 - NL	Yes	Result Within Limits

7d Survival Rate Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Upstream Contr	10	0.9	0.782	1	0	1	0.0577	0.316	35.1%	0.0%
6.25		10	0.9	0.782	1	0	1	0.0577	0.316	35.1%	0.0%
12 5		10	0.9	0.782	1	0	1	0.0577	0.316	35.1%	0.0%
25		10	1	1	1	1	1	0	0	0.0%	-11.1%
50		10	0.9	0.782	1	0	1	0.0577	0.316	35.1%	0.0%
100		10	0.9	0.782	1	0	1	0.0577	0.316	35.1%	0.0%

Reproduction Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Upstream Contr	10	17.7	15	20.4	0	29	1.34	7.36	41.6%	0.0%
6.25		10	17.5	14.6	20.4	2	31	1.42	7.79	44.5%	1.13%
12.5		10	17.8	14.7	20.9	0	28	1.5	8.23	46.2%	-0.57%
25		10	17.8	16.1	19.5	10	24	0.82	4.49	25.2%	-0.57%
50		10	14.7	12.8	16.6	6	20	0.943	5.17	35.1%	16.9%
100		10	17.7	14.9	20.5	2	30	1.39	7.59	42.9%	0.0%

7d Survival Rate Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Upstream Contr	1	1	1	1	1	1	1	1	1	0
6.25		1	1	1	1	1	1	0	1	1	1
12.5		1	1	1	1	1	1	0	1	1	1
25		1	1	1	1	1	1	1	1	1	1
50		1	1	1	1	1	0	1	1	1	1
100		1	1	1	1	1	1	1	0	1	1

Reproduction Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Upstream Contr	15	17	20	20	20	20	29	15	21	0
6.25		20	11	14	19	25	16	2	18	31	19
12.5		17	11	15	23	16	28	0	27	22	19
25		12	10	16	16	18	20	23	18	21	24
50		15	17	20	13	19	6	14	20	17	6
100		20	19	22	16	15	30	24	2	11	18

Analyst: PB QA: SM

Fathead Minnow
Effluent Test Data Sheets

SUBJECT: FATHEAD MINNOW CHRONIC TEST - COVER

Client: Plant Branch
Test Substance: WWTP Effluent

Project Number: 6123150089.02
Test Species: Pimephales promelas

ANIMAL HISTORY

LOT NUMBER: 2015-23

Date of Hatch: 4/20/15

See Page No.: 19 of Fish Holding Log for Larvae History

Source of Larvae: hydrosphere

See Page No.: 19 of Animal Receipt Log

Condition of Larvae: good

TEST CONDITIONS

Test Protocol: EPA-821-R-02-013 Method 1000.0

Type Lighting: Fluorescent

Photoperiod: 16 light/8 dark

Dilution Water: synthetic mod-hard water

Solution Volume: 250 mL

Test Container: 600 mL beaker

Organisms per rep: 10

Replicates per Concentration: 4

Feeding: Daily (see Daily Feeding Log)

Test Temperature: 25 ± 1 °C

WaterBath /Incubator (Circle One)

Dilution Water Batch Number: MHW20150424

For Effluent Sample Information, See Page Number 192 of Effluent Receipt Log

TEST CONCENTRATION %	Control	6.25	12.5	25	50	100	
Volume of Dilution Water (ml)	1000	937.5	875	750	500	0	
Volume of Effluent / Stock (ml)	0	62.5	125	250	500	1000	

Additional Comments:

TEST DATA RECORDED BY: PB

DATE: 5/1/15

Amec Foster Wheeler
Newberry, FL

QA Form: 106G
Revised: March 2015

DAILY FEEDING LOG

Client: Plant Branch
Test Substance: WWTP Effluent

Project Number: 6123150089.02
TEST SPECIES: P. promelas

TEST DAY	DATE	TIME	INITIALS	FOOD TYPE	QUANTITY	COMMENTS
In Holding	4/21/15	1000 1700	KW PB	BS	2.0 ml	In Holding Vessels
Day1	4/22/15	0800 1130	[illegible] [illegible]	BS	0.2 ml	2 hours prior to renewal 6 hours after initial feeding
Day2	4/23/15	0800 1700	DB [illegible]	BS	0.2 ml	2 hours prior to renewal 6 hours after initial feeding
Day3	4/24/15	0800 1450	DB SBS	BS	0.2 ml	2 hours prior to renewal 6 hours after initial feeding
Day4	4/25/15	1130 1500	JH KL	BS	0.2 ml	2 hours prior to renewal 6 hours after initial feeding
Day5	4/26/15	1100 1700	KK PB	BS	0.2 ml	2 hours prior to renewal 6 hours after initial feeding
Day 6	4/27/15	0800 1700	PB PB	BS	0.2 ml	2 hours prior to renewal 6 hours after initial feeding

BS = Brine Shrimp nauplii YTC = Yeast/Trout Chow/Cereal Leaves
Algae = Green Algae (*Selenastrum capricornutum*)

Amec Foster Wheeler
Newberry, Florida

QA Form Number: 055
Revised: March 2015

SUBJECT: PROMELAS CHRONIC TEST - WATER QUALITY

Client: Plant Branch | **Project Number: 6123150089.02**

Test Substance: WWTP Effluent | **Test Species: Pimephales promelas**

Test Conc %	Parameter	Day 0	Day 1 Old	Day 1 New	Day 2 Old	Day 2 New	Day 3 Old	Day 3 New	Day 4 Old	Day 4 New	Day 5 Old	Day 5 New	Day 6 Old	Day 6 New	Day 7
CTRL (0)	Temp (°C)	25.3	25.0		25.0		25.6		25.0		25.3		24.3		25.2
	pH (su)	8.2	7.0		8.4		7.3		7.9		7.4		7.0		7.5
	DO (mg/L)	7.8	6.7	7.6	6.1	7.7	6.1	7.6	5.7	7.5	5.4	7.6	6.0	7.6	5.7
	Alkalinity (mg of CaCO3)	41													
	Hardness (mg of CaCO3)	69													
	Conductivity (µmhos/cm)	535													
6.25	Temp (°C)	25.7	24.6		25.0		25.7		25.2		25.0		24.0		25.3
	pH (su)	8.2	7.1		8.4		7.3		7.8		7.3		7.1		7.3
	DO (mg/L)	7.6	6.6	7.8	6.1	6.4	6.1	7.7	5.8	7.5	5.4	7.7	6.0	7.7	5.8
12.5	Temp (°C)	25.8	24.6		25.0		25.8		25.1		25.0		23.9		25.0
	pH (su)	8.2	7.2		8.3		7.2		7.7		7.3		7.0		7.2
	DO (mg/L)	7.6	6.6	7.8	6.1	7.7	6.0	7.7	5.7	7.6	5.5	7.7	5.5	7.7	5.2
25	Temp (°C)	25.6	24.6		25.0		25.7		25.1		24.9		23.8		25.0
	pH (su)	8.2	7.1		8.2		7.1		7.6		7.2		7.0		7.1
	DO (mg/L)	7.8	6.7	7.8	6.3	7.7	6.0	7.8	5.5	7.6	5.4	7.7	5.3	7.7	3.7
50	Temp (°C)	25.6	24.6		25.1		25.7		25.1		24.3		23.8		25.0
	pH (su)	8.1	7.0		8.1		7.0		7.5		7.1		7.0		7.1
	DO (mg/L)	7.9	6.7	7.8	6.4	7.7	6.1	7.8	5.6	7.7	5.5	7.7	6.0	7.9	5.1
100	Temp (°C)	25.5	24.6		25.2		25.3		25.2		24.8		23.8		25.1
	pH (su)	8.0	7.0	7.0	7.9	8.0	6.9	7.3	7.4	7.6	7.0	7.6	6.8	7.4	6.9
	DO (mg/L)	8.3	6.7	8.0	6.2	7.8	6.0	7.9	5.5	7.7	5.4	8.2	5.3	8.3	4.2
	Alkalinity (mg of CaCO3)	239													
	Hardness (mg of CaCO3)	303													
	Conductivity (µmhos/cm)	758													
WQ in New Sample															
100% (new sample)	Alkalinity (mg of CaCO3)	239				29				44					
	Hardness (mg of CaCO3)	303				308				288					
	Conductivity (µmhos/cm)	758				952				728					
Thermocouple		FS16	FS16		FS16		FS16		FS16		FS16		FS16		FS15
pH Meter		pH3	pH3		pH3		pH3		pH3		pH3		pH3		pH3
DO Meter		DO6	DO6		DO6		DO6		DO6		DO6		DO6		DO6
Conductivity Meter		SCT5			SCT5				SCT5						
INITIALS:		PB	PB		[illegible]		KK		[illegible]		KK		SS		[illegible]
DATE:		4/21/15	4/22/15		4/23/15		4/24/15		4/25/15		4/26/15		4/27/15		4/28/15
TIME:		1600	1320		1645		1200		1500		1200		1300		1700

Temp = Temperature DO = Dissolved Oxygen su = standard units Conductivity reported as umhos cm

AMEC
Newberry, FL

QA Form Number 105C
August 2008

SHORT-TERM CHRONIC TOXICITY TEST

Organism Exposed: *P. promelas*

Client: Plant Branch						Project Number: 6123150089.02								Test Substance: WWTP				Weight of Oven-Dried Pan (g) (A)	Dry Weight of Pan and Organisms (g) (B)
		Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date		
		0	4/21/15	1	4/22	2	4/23/15	3	4/24/15	4	4/25/15	5	4/26/15	6	4/27/15	7	4/28/15	4/23/15	4/29/15
Treat-ment, unit: __%__	Replicate	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.		
CTRL	A	10 loaded		10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1133	1.1251
	B			10	N	10	N	10	N	10	N	10	N	9	1D	9	N	1.1146	1.1261
	C			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1084	1.1188
	D			10	N	10	N	10	N	10	N	10	N	10	N	8	2D	1.1071	1.1159
	E					10													
	F																		
6.25	A			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1081	1.1185
	B			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1269	1.1391
	C			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1227	1.1336
	D			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1112	1.1228
	E																		
	F																		
12.5	A			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1161	1.1275
	B			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1072	1.1197
	C			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1140	1.1254
	D			10	N	10	N	10	N	9	1D	9	N	9	N	9	N	1.1108	1.1205
	E																		
	F																		
25	A			10	N	10	N	10	N	~~10~~ 9	1D	9	N	9	N	9	N	1.0953	1.1066
	B			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1138	1.1241
	C			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1168	1.1267
	D			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.0769	1.0883
	E																		
	F																		
Date recorded by:		Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time		
		PB	1600	[illegible]	1100	HC	1500	KK	1130	KK	1430	KK	1200	KK	1210	AN	1052		

N = Normal Leth = Lethargic Err = Swimming Erratically A = Alive NF = Not Found D = Dead Obs. = Observation

Comments:

KK
4/25/15

AMEC
Newberry, FL

QA Form Number 105C
August 2008

SHORT-TERM CHRONIC TOXICITY TEST

Organism Exposed: ***P. promelas***

Client: Plant Branch | **Project Number:** 6123150089.02 | **Test Substance:** WWTP

		Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Weight of Oven-Dried Pan (g) (A)	Dry Weight of Pan and Organisms (g) (B)
		0	4/21/15	1	4/22/15	2	4/23/15	3	4/24/15	4	4/25/15	5	4/26/15	6	4/27/15	7	4/28/15	4/23/15	4/29/15
Treat-ment, unit: __%__	Replicate	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.		
50	A	10	Loading	10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.0966	1.1075
	B			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.0899	1.1028
	C			10	N	10	N	10	N	10	N	10	N	10	N	9	D	1.1246	1.1351
	D			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.0999	1.1121
	E																		
	F																		
100	A			10	N	10	N	10	N	10	N	9	D	9	N	9	N	1.1073	1.1162
	B			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1146	1.1242
	C			10	N	10	N	10	N	9	D	9	N	9	N	9	N	1.1064	1.1165
	D			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1052	1.1154
	E																		
	F																		
Date recorded by:		Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time		
		PB	1600	[illegible]	1100	HK	1500	KK	1130	KK	1430	KK	1200	KK	1215	AN	1052		

N = Normal Leth = Lethargic Err = Swimming Erratically A = Alive NF = Not Found D = Dead

Comments:

CETIS Summary Report

Report Date: 30 Apr-15 12:44 (p 1 of 1)
Test Code: 04-5986-3676/W15-APR-PLA-PP

Fathead Minnow 7-d Larval Survival and Growth Test — **AMEC Biology-Toxicology LAB**

Batch ID:	03-3094-7149	**Test Type:**	Growth-Survival (7d)	**Analyst:**	
Start Date:	21 Apr-15	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Mod-Hard Synthetic Water
Ending Date:	28 Apr-15	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Duration:	7d 0h	**Source:**	Hydrosphere	**Age:**	<24h

Sample ID:	06-6502-1829	**Code:**	27A36D85	**Client:**	Plant
Sample Date:	20 Apr-15	**Material:**	WWTP	**Project:**	6123150089.02
Receive Date:	21 Apr-15	**Source:**	Plant Branch		
Sample Age:	24h	**Station:**			

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
17-4507-0967	7d Survival Rate	100	>100	N/A	10.8%	1	Dunnett's Multiple Comparison Test
09-0444-6146	Mean Dry Biomass-mg	100	>100	N/A	16.0%	1	Dunnett's Multiple Comparison Test

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
17-4507-0967	7d Survival Rate	Control Resp	0.925	0.8 - NL	Yes	Result Within Limits
09-0444-6146	Mean Dry Biomass-mg	Control Resp	1.06	0.25 - NL	Yes	Result Within Limits
09-0444-6146	Mean Dry Biomass-mg	PMSD	0.16	0.12 - 0.3	Yes	Result Within Limits

7d Survival Rate Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	4	0.925	0.889	0.961	0.8	1	0.0175	0.0957	10.4%	0.0%
6.25		4	1	1	1	1	1	0	0	0.0%	-8.11%
12.5		4	0.975	0.956	0.994	0.9	1	0.00913	0.05	5.13%	-5.41%
25		4	0.975	0.956	0.994	0.9	1	0.00913	0.05	5.13%	-5.41%
50		4	0.975	0.956	0.994	0.9	1	0.00913	0.05	5.13%	-5.41%
100		4	0.95	0.928	0.972	0.9	1	0.0105	0.0577	6.08%	-2.7%

Mean Dry Biomass-mg Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	4	1.06	1.01	1.11	0.88	1.18	0.0248	0.136	12.8%	0.0%
6.25		4	1.13	1.1	1.16	1.04	1.22	0.0144	0.0789	7.0%	-6.12%
12.5		4	1.13	1.08	1.17	0.97	1.25	0.0211	0.116	10.3%	-5.88%
25		4	1.07	1.04	1.1	0.99	1.14	0.0135	0.0741	6.91%	-0.94%
50		4	1.16	1.12	1.2	1.05	1.29	0.0204	0.112	9.61%	-9.41%
100		4	0.97	0.948	0.992	0.89	1.02	0.0109	0.0594	6.13%	8.71%

7d Survival Rate Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1	0.9	1	0.8
6.25		1	1	1	1
12.5		1	1	1	0.9
25		0.9	1	1	1
50		1	1	0.9	1
100		0.9	1	0.9	1

Mean Dry Biomass-mg Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	1.18	1.15	1.04	0.88
6.25		1.04	1.22	1.09	1.16
12.5		1.14	1.25	1.14	0.97
25		1.13	1.03	0.99	1.14
50		1.09	1.29	1.05	1.22
100		0.89	0.96	1.01	1.02

Analyst: PB QA: SM

Water Flea
Reference Toxicant Test Data Sheets

SUBJECT: CERIODAPHNIA CHRONIC TEST - COVER

Sponsor: REFERENCE TOXICANT TEST

Test Substance: NaCL

Test Species: *Ceriodaphnia dubia*

ANIMAL HISTORY

LOT NUMBER: CD20150406

Date Neonates Collected: 4/14/15

See Page NA of Cladoceran Neonate History Log

Age of Neonates (hours): <24 hours

Condition of Neonates: good

TEST CONDITIONS

Test Protocol: EPA-821-R-02-013 1002.0

Dilution Water: 20%Perrier/80%MilliQ

Dilution Water Batch Number: PD2015-7

Type Lighting: Fluorescent

Photoperiod: 16 light/8 dark

Test Container: 30 mL Plastic Beaker

Solution Volume: 15 mL

Replicates per Concentration: 10

Organisms per rep: 1

Test Temperature: 25 ± 1 °C

WaterBath / Incubator (circle one)

TEST SOLUTION PREPARATION 10 g NaCl /L of dilution water Reftox Batch #

TEST CONCENTRATION % g/L	Control	0.125	0.25	0.50	1	2	4
Volume of dilution Water Added (ml)	1400.00	1382.50	1365.00	1330.00	1260.00	1120.00	420.00
Volume of Effluent / Stock Added (ml)	---	17.50	35.00	70.00	140.00	280.00	280.00

TEST VALIDITY CRITERIA

Percent of Surviving Female Adults with 3 Broods in Control:

Percent Survival of Control Adults: 100 %

Mean Number of Neonates per Adult Female in Control: 23.1

TEST SUMMARY

Test Concentration (g/L)	Number of Neonates	Number of Broods	Adult C. dubia No. Alive	Adult C. dubia No. Dead	Number of Males	Neonates Per Adult	Brood per Adult
CONTROL	231		10	0		23.1	
0.125	228		9	1		22.8	
0.25	237		8	2		23.7	
0.5	233		10	0		23.3	
1	146		8	2		14.6	
2	39		8	2		3.9	
4	0		0	0		0	

Additional Comments:

TEST DATA RECORDED BY PB DATE: 4/23/15

TEST SUMMARY RECORDED BY PB DATE 4/23/15

SUBJECT: REFERENCE TOXICANT TEST - WATER QUALITY

REFERENCE TOXICANT TEST

Test Substance: NaCl

Test Species: Ceriodaphnia dubia

Test Conc %	Parameter	Day 0	Day 1 Old	Day 1 New	Day 2 Old	Day 2 New	Day 3 Old	Day 3 New	Day 4 Old	Day 4 New	Day 5 Old	Day 5 New	Day 6 Old	Day 6 New	Day 7
CTRL (0)	Temp (°C)	24.9	25.0		24.9		25.2		25.2		25.1		24.9		25.5
	pH (su)	8.3	8.2		7.6		8.1		7.8		7.8		7.8		7.3
	DO (mg/L)	7.8	7.8	8.4	7.6	7.6	7.7	7.7	7.5	7.8	7.4	7.5	7.5	7.6	7.4
	Alkalinity	60													
	Hardness	66													
	Conductivity	247													
0.125	Temp (°C)	25.0	24.8		25.0		25.0		25.4		25.2		25.0		25.1
	pH (su)	8.0	7.8		7.6		7.9		7.8		7.8		7.8		7.2
	DO (mg/L)	7.8	7.7	8.1	7.7	7.7	7.7	7.7	7.6	7.7	7.4	7.5	7.6	7.6	7.3
0.25	Temp (°C)	25.5	24.6		24.9		25.0		25.4		25.3		25.0		24.8
	pH (su)	8.0	7.7		7.6		7.9		7.7		7.8		7.8		7.3
	DO (mg/L)	7.7	7.8	8.1	7.7	7.7	7.8	7.7	7.7	7.6	7.5	7.5	7.5	7.6	7.5
0.5	Temp (°C)	25.6	24.6		24.9		24.9		25.5		25.4		25.0		24.8
	pH (su)	7.9	7.7		7.7		7.9		7.7		7.7		7.7		7.3
	DO (mg/L)	7.7	7.8	7.9	7.8	7.6	7.8	7.7	7.8	7.6	7.5	7.5	7.6	7.6	7.6
1	Temp (°C)	25.5	24.6		24.9		24.9		25.5		25.6		25.0		24.7
	pH (su)	7.9	7.8		7.6		7.8		7.7		7.7		7.7		7.3
	DO (mg/L)	7.7	7.9	7.9	7.7	7.6	7.9	7.8	7.7	7.6	7.5	7.5	7.6	7.6	7.5
2	Temp (°C)	25.3	25.5		24.9		24.9		25.5		25.8		24.9		24.7
	pH (su)	8.0	7.9		7.6		7.9		7.7		7.7		7.6		7.4
	DO (mg/L)	7.6	7.7	7.9	7.7	7.6	7.8	7.8	7.6	7.6	7.5	7.5	7.5	7.6	7.5
4	Temp (°C)	25.3	24.2												
	pH (su)	7.9	7.8												
	DO (mg/L)	7.7	8.0												
Thermocouple		FS16	FS16		FS16		FS16		FS16		FS16		FS16		FS16
pH Meter		pH3	pH3		pH3		pH3		pH3		pH3		pH3		pH3
DO Meter		DO6	DO6		DO6		DO6		DO6		DO6		DO6		DO6
Conductivity Meter		SCT-5													
INITIALS:		AN	KK		JH		AN		JH		JH		JH		JH
DATE:		4/14/15	4/15/15		4/16/15		4/17/15		4/18/15		4/19/15		4/20/15		4/21/15
TIME:		1312	1425		1440		1430		1340		1345		1605		1545

Temp = Temperature DO = Dissolved Oxygen su = standard units Conductivity reported as umhos cm

Amec Foster Wheeler
Newberry, Florida

QA Form Number: 054
Revised: March 2015

SUBJECT: CERIODAPHNIA CHRONIC TEST - SURVIVAL

REFERENCE TOXICANT TEST

Test Substance: NaCl Test Species: *Ceriodaphnia dubia*

Test Conc (mg/L)	Day	A AD	A N	B AD	B N	C AD	C N	D AD	D N	E AD	E N	F AD	F N	G AD	G N	H AD	H N	I AD	I N	J AD	J N
Control 0	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	4	1	2	1	5	1	3	1	0	1	0	1	3	1	0	1	5	1	2	1	4
	5	1	8	1	6	1	0	1	6	1	9	1	8	1	7	1	4	1	5	1	6
	6	1	10	1	0	1	10	1	8	1	11	1	13	1	14	1	0	1	9	1	1
	7	1	1	1	19	1	13	1	16	1	0	1	0	1	0	1	13	1	0	1	12
			21		30		26		30		20		24		21		22		14		23
0.125	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	4	1	2	1	3	1	4	1	0	1	2	1	1	1	1	1	4	1	0	1	1
	5	1	5	1	2	1	4	1	9	1	9	1	10	1	7	1	10	1	8	1	8
	6	1	8	1	3	1	2	1	13	1	15	1	11	1	16	1	12	1	13	10	0
	7	1	1	1	15	1	14	1	14	1	17	1	0	1	0	1	0	1	1	1	1
			16		23		24		36		26		22		24		26		22	X	19
0.25	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	4	1	5	1	8	1	3	1	2	1	0	10	0	1	0	1	5	1	4	1	0
	5	1	9	1	11	1	8	1	12	1	11			1	8	1	8	1	9	1	9
	6	1	12	1	0	1	10	1	14	1	12			1	4	1	14	1	14	1	15
	7	1	10	1	17	1	12	1	0	1	14			10	0	1	0	1	0	1	2
			26		36		21		28		37	X	0	X	9		27		27		26
TEST DAY		0		1		2		3		4		5		6		7					
INITIALS		AN		AN		JH		KK		JH		AN		JH		JH					
DATE		4/14/15		4/15/15		4/16/15		4/17/15		4/18/15		4/19/20		4/20/15		4/21/15					
TIME		1150		1400		1425		1430		1300		1225		1505		1430					

A = Alive D = Dead N = Neonates (number of neonates recorded for day observed; not cumulative)

SUBJECT: CERIODAPHNIA CHRONIC TEST - SURVIVAL

REFERENCE TOXICANT TEST

Test Substance: NaCl Test Species: *Ceriodaphnia dubia*

Test Conc	Day	A AD	A N	B AD	B N	C AD	C N	D AD	D N	E AD	E N	F AD	F N	G AD	G N	H AD	H N	I AD	I N	J AD	J N
0.5	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	4	1	6	1	0	1	0	1	0	1	1	1	2	1	0	1	3	1	1	1	4
	5	1	8	1	4	1	0	1	9	1	8	1	10	1	8	1	11	1	10	1	5
	6	1	1	1	7	1	9	1	12	1	14	1	14	1	16	1	8	1	13	1	15
	7	1	10	1	9	1	12	1	0	1	9	1	1	1	0	1	1	1	0	1	1
			25		20		21		21		23		20	27	24		23		24		25
1	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	4	1	0	1	0	1	5	1	0	1	0	1	3	1	2	1	1	1	4	1	0
	5	1	0	1	0	1	5	1	6	1	8	1	9	1	6	1	8	1	5	1	6
	6	1	0	1	9	1	2	1	7	1	0	1	7	1	10	1	0	1	9	1	0
	7	1	7	1	8	1	8	1	1	1	1	1	0	1	0	1	10	1	0	1	1
			7		17		20		14	X	8		19		18		19		18	X	6
2	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	3					1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
	4					1	0	1	2	1	0	1	0	1	0	1	0	1	1	1	0
	5					1	0	1	0	1	3	1	2	1	5	1	0	1	0	1	3
	6					1	1	1	2	1	0	1	0	1	0	1	3	1	0	1	0
	7					1	0	1	3	1	3	1	1	1	2	1	6	1	1	1	1
		X	0	X	0		1		7		6		3		7		9		2		4

TEST DAY	0	1	2	3	4	5	6	7
INITIALS	AN	AN	JH	KK	JH	AN	JH	
DATE	4/14/15	4/15/15	4/16	4/17/15	4/18	4/19	4/20	
TIME	1150	1400	1435	1440	1300	1225	1515	

A = Alive D = Dead N = Neonates (number of neonates recorded for the observation, not cumulative)

AMEC, Inc.
Newberry, Florida

QA Form Number: 054
Revised: March 2001

SUBJECT: CERIODAPHNIA CHRONIC TEST - SURVIVAL

REFERENCE TOXICANT TEST

Test Substance: NaCl Test Species: *Ceriodaphnia dubia*

Test Conc	REPLICATE	A		B		C		D		E		F		G		H		I		J	
	Day	AD	N	AD	N	AD	N	AD	N	AD	N	AD	N	AD	N	AD	N	AD	N	AD	N
4	1	O	1D	O	1D	O	1D	O	1D	O	1D	O	1D	O	1D	O	1D	O	1D	O	1D
	2																				
	3																				
	4																				
	5																				
	6																				
	7																				
	1																				
	2																				
	3																				
	4																				
	5																				
	6																				
	7																				
	1																				
	2																				
	3																				
	4																				
	5																				
	6																				
	7																				

TEST DAY	0	1	2	3	4	5	6	7		
INITIALS	AN	AN								
DATE	4/14/15	4/15/15								
TIME	1150	1400								

A = Alive D = Dead N = Neonates (number of neonates recorded for day observed, not cumulative)

CETIS Summary Report

Report Date: 23 Apr-15 11:03 (p 1 of 2)
Test Code: 14-1227-8103/RT7DCD20150414

Ceriodaphnia 7-d Survival and Reproduction Test — **AMEC Biology-Toxicology LAB**

Batch ID:	19-9788-1488	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	
Start Date:	14 Apr-15	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Dilute Mineral Water
Ending Date:	21 Apr-15	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Duration:	7d 0h	**Source:**	In-House Culture	**Age:**	<24h

Sample ID:	13-8524-6353	**Code:**	52912E91	**Client:**	ADMIN
Sample Date:	13 Apr-15	**Material:**	Sodium chloride	**Project:**	ADMIN
Receive Date:	14 Apr-15	**Source:**	Reference Toxicant		
Sample Age:	24h	**Station:**	In House		

Point Estimate Summary

Analysis ID	Endpoint	Level	gm/L	95% LCL	95% UCL	TU	Method
16-1121-8010	7d Survival Rate	LC5	0.0607	0.0299	0.732		Linear Interpolation (ICPIN)
		LC10	0.5	0.0607	2		
		LC15	0.732	0.0924	2.09		
		LC20	2	0.207	2.18		
		LC25	2.1	0.732	2.27		
		LC40	2.41	1.62	2.56		
		LC50	2.63	2	2.76		
02-2803-7940	Reproduction	IC5	0.559	0.0493	0.571		Linear Interpolation (ICPIN)
		IC10	0.621	0.101	0.673		
		IC15	0.685	0.216	0.767		
		IC20	0.751	0.533	0.908		
		IC25	0.821	0.633	1.02		
		IC40	1.05	0.827	1.23		
		IC50	1.24	0.94	1.39		

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
16-1121-8010	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Result Within Limits
02-2803-7940	Reproduction	Control Resp	23.1	15 - NL	Yes	Result Within Limits

7d Survival Rate Summary

Conc-gm/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	10	1	1	1	1	1	0	0	0.0%	0.0%
0.125		10	0.9	0.782	1	0	1	0.0577	0.316	35.1%	10.0%
0.25		10	0.8	0.643	0.957	0	1	0.077	0.422	52.7%	20.0%
0.5		10	1	1	1	1	1	0	0	0.0%	0.0%
1		10	0.8	0.643	0.957	0	1	0.077	0.422	52.7%	20.0%
2		10	0.8	0.643	0.957	0	1	0.077	0.422	52.7%	20.0%
4		10	0	0	0	0	0	0	0		100.0%

Reproduction Summary

Conc-gm/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	10	23.1	21.3	24.9	14	30	0.875	4.79	20.8%	0.0%
0.125		10	22.8	20.2	25.4	9	36	1.27	6.96	30.5%	1.3%
0.25		10	23.7	19.5	27.9	0	37	2.08	11.4	48.0%	-2.6%
0.5		10	23.3	22.5	24.1	20	27	0.395	2.16	9.28%	-0.87%
1		10	14.6	12.5	16.7	6	20	1	5.5	37.7%	36.8%
2		10	3.9	2.7	5.1	0	9	0.587	3.21	82.4%	83.1%
4		10	0	0	0	0	0	0	0		100.0%

Analyst: PB QA: SM

CETIS Summary Report

Report Date: 23 Apr-15 11:03 (p 2 of 2)
Test Code: 14-1227-8103/RT7DCD20150414

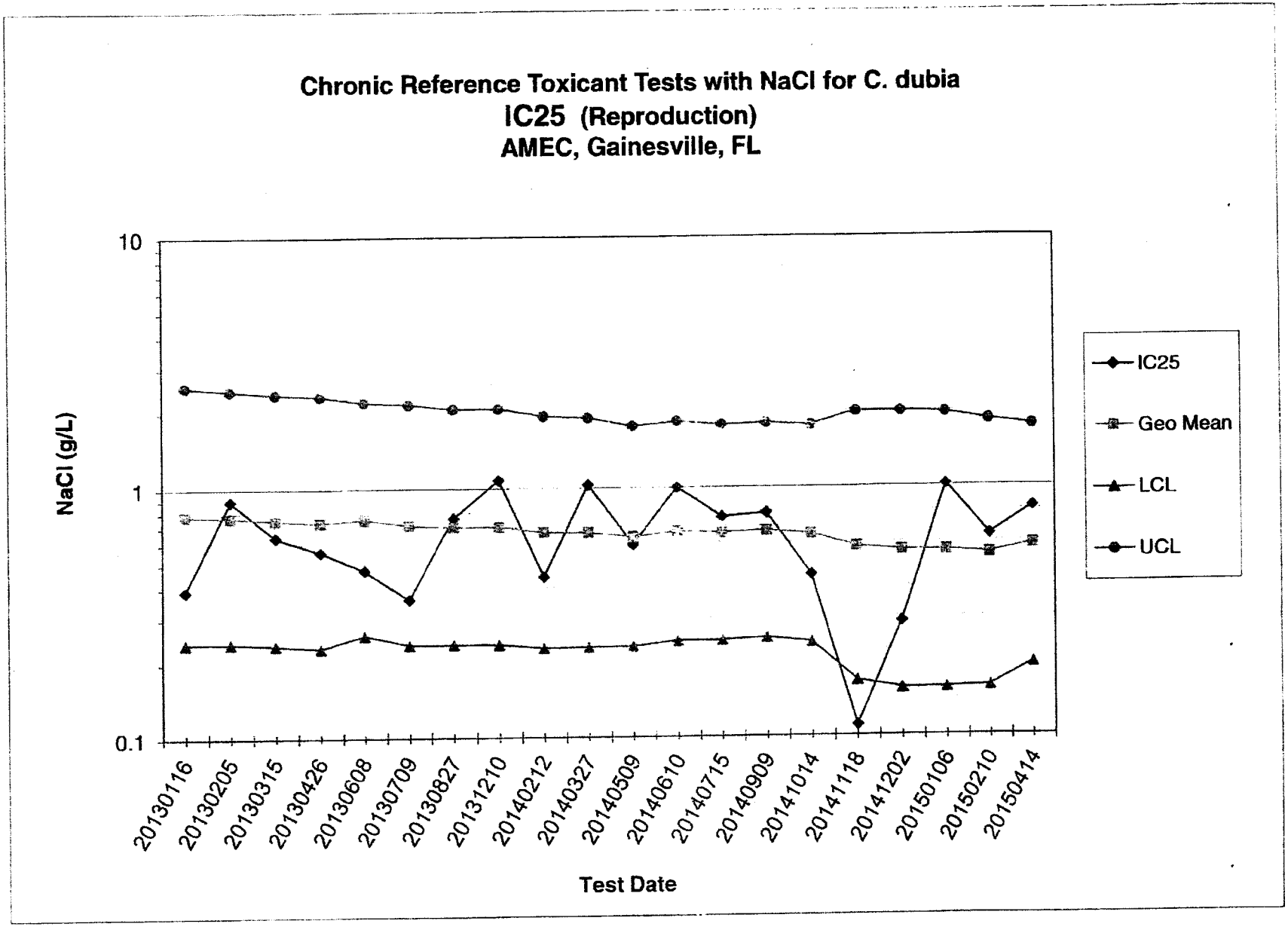
Ceriodaphnia 7-d Survival and Reproduction Test — **AMEC Biology-Toxicology LAB**

7d Survival Rate Detail

Conc-gm/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	1	1	1	1	1	1	1	1	1	1
0.125		1	1	1	1	1	1	1	1	1	0
0.25		1	1	1	1	1	0	0	1	1	1
0.5		1	1	1	1	1	1	1	1	1	1
1		1	1	1	1	0	1	1	1	1	0
2		0	0	1	1	1	1	1	1	1	1
4		0	0	0	0	0	0	0	0	0	0

Reproduction Detail

Conc-gm/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	21	30	26	30	20	24	21	22	14	23
0.125		16	23	24	36	26	22	24	26	22	9
0.25		26	36	21	28	37	0	9	27	27	26
0.5		25	20	21	21	23	27	24	23	24	25
1		7	17	20	14	8	19	18	19	18	6
2		0	0	1	7	6	3	7	9	2	4
4		0	0	0	0	0	0	0	0	0	0


Chronic Reference Toxicant Tests with NaCl for C. dubia
IC25 (Reproduction)
AMEC, Gainesville, FL
NaCl (g/L)
10
1
0.1
20130116
20130205
20130315
20130426
20130608
20130709
20130827
20131210
20140212
20140327
20140509
20140610
20140715
20140909
20141014
20141118
20141202
20150106
20150210
20150414
Test Date
IC25
Geo Mean
LCL
UCL

Fathead Minnow
Reference Toxicant Test Data Sheets

Amec Foster Wheeler
Newberry, Florida

Revised: March 2015

SUBJECT: PROMELAS CHRONIC TEST - COVER

Reference Toxicant

Test Substance: NaCl

Test Species: *Pimephales promelas*

ANIMAL HISTORY

LOT NUMBER: 2015-23

See Page 19 of Organism Receipt Log

Date received: 4/21/15

Age of Organisms: <24 hrs

Condition of Organisms: good

TEST CONDITIONS

Test Protocol: EPA-821-R-02-013 1000.0

Dulution water Type: Chemically Prepared Mod Hard Water

Dilution Water Batch number: MHW20150424

Type Lighting: Fluorescent

Photoperiod: 16 light/8 dark

Test Container: 600ml Glass Beaker

Solution Volume: 250 mL

Replicates per Concentration: 4

Organisms per rep: 10

Test Temperature: 25 ± 1 °C

WaterBath / Incubator (circle one)

TEST SOLUTION PREPARATION

15g NaCl /L or 30g NaCl/2L of dilution water

Reftox Batch # NACL2015

TEST CONCENTRATION g/L	Control	0.75	1.5	3	6	12	-
Volume of dilution Water Added (ml)	3500	3325	3150	2800	2100	200	-
Volume of Effluent / Stock Added (ml)	---	175	350	700	1400	800	-

TEST VALIDITY CRITERIA

80% survial in controls; average dry weight per surviving organism in control chambers equals or exceeds 0.25 mg

Percent Survival of Control Adults: 95 %

Average dry weight of survival in the Control: 0.962

TEST SUMMARY

Test Concentration (g/L)	Number of Surviving organisms	Percent Survival	Comments
CONTROL	38	95	
0.75	39	97.5	
1.5	40	100	
3	32	80	
6	12	30	
12	0	0	
-			

Additional Comments:

TEST DATA RECORDED BY: PB DATE: 4/30/15

TEST SUMMARY RECORDED BY PB DATE: 4/30/15

Amec Foster Wheeler
Newberry, Florida

QA Form Number: 055
Revised: March 2015

SUBJECT: PROMELAS CHRONIC TEST - WATER QUALITY

REFERENCE TOXICANT TEST

Test Substance: NaCl

Test Species: Pimephales promelas

Test Conc %	Parameter	Day 0	Day 1 Old	Day 1 New	Day 2 Old	Day 2 New	Day 3 Old	Day 3 New	Day 4 Old	Day 4 New	Day 5 Old	Day 5 New	Day 6 Old	Day 6 New	Day 7
CTRL (0)	Temp (°C)	25.3	23.6		25.6		25.1		26.0		25.4		24.8		25.0
	pH (su)	8.0	6.7		8.0		7.2		6.4		7.6		7.6		7.7
	DO (mg/L)	7.7	6.8	7.4	6.6	8.1	5.6	7.6	5.5	7.5	5.6	7.5	5.9		5.8
0.75	Temp (°C)	25.1	24.5		25.4		25.0		25.9		25.3		24.6		25.2
	pH (su)	8.0	7.2		7.5		7.2		6.8		7.8		7.6		7.5
	DO (mg/L)	7.7	6.9	7.5	6.5	8.1	5.5	7.7	5.4	7.5	5.4	7.5	6.0		6.2
1.5	Temp (°C)	25.1	24.3		25.3		25.0		25.9		25.1		24.5		25.1
	pH (su)	7.9	7.3		7.4		7.3		6.9		7.8		7.7		7.5
	DO (mg/L)	7.7	6.9	7.6	6.5	8.1	6.0	8.1	5.3	7.6	5.9	7.5	6.0		6.4
3	Temp (°C)	25.2	24.3		25.4		25.0		25.9		25.3		24.6		25.1
	pH (su)	7.8	7.3		7.4		7.2		6.8		7.6		7.7		7.4
	DO (mg/L)	7.7	6.8	7.6	6.6	8.1	6.2	8.3	5.6	7.6	6.4	7.5	6.2		6.7
6	Temp (°C)	25.1	24.3		25.3		25.0		25.9		25.3		24.6		25.1
	pH (su)	7.7	7.4		7.4		7.0		6.8		7.6		7.7		7.3
	DO (mg/L)	7.6	6.9	7.4	6.6	8.1	6.1	8.0	5.6	7.6	6.3	7.5	6.2		6.4
12	Temp (°C)	25.0	24.4												
	pH (su)	7.5	7.3												
	DO (mg/L)	7.7	6.6												
Thermocouple		FS13	FS13		FS16		FS16		FS16		FS16		FS16		FS16
pH Meter		pH3	pH3		pH3		pH3		pH3		pH3		pH3		pH3
DO Meter		DO6	DO6		DO6		DO6		DO6		DO6		DO6		DO6
INITIALS:		AN	SS		KK		AN		KK		AN		SS		
DATE:		4/21/15	4/22/15		4/23/15		4/24/15		4/25/15		4/26/15		4/27/15		4/28/15
TIME:		1343	1400		1115		1414		1430		1430		1320		1700

Temp = Temperature DO = Dissolved Oxygen su = standard units Conductivity reported as umhos/cm

SHORT-TERM CHRONIC TOXICITY TEST

Organism Exposed: *P. promelas*

Reftox														Test Substance: WWTP Effluent					
		Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Test Day	Date	Date	Date
		0	4/21/15	1	4/22/15	2	4/23/15	3	4/24/15	4	4/25/15	5	4/26/15	6	4/27/15	7	4/28/15	4/23/15	4/29/15
Treatment, unit: %	Replicate	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	# Alive	Obs.	Weight of Oven-Dried Pan (g)	Dry Weight of Pan and Organisms (g)
CTRL	A	10	loaded	10	N	10	N	9	D	9	N	9	N	9	N	9	N	1.1056	1.1138
	B			10	N	10	N	9	D	9	N	9	N	9	N	9	N	1.1210	1.1302
	C			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1148	1.1256
	D			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1048	1.1151
	E																		
	F																		
0.75	A			10	N	10	N	10	N	10	N	10	N	10	N	9	D	1.1053	1.1166
	B			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1049	1.1189
	C			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.0999	1.1132
	D			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1141	1.1245
	E			1															
	F																		
1.5	A			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1008	1.1148
	B			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1089	1.1214
	C			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.1216	1.1322
	D			10	N	10	N	10	N	10	N	10	N	10	N	10	N	1.0961	1.1063
	E																		
	F																		
Date recorded by:		Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Initials
		AN	1350	KK	1200	KK	1100	SEB	1400	KK	1400	AN	1315	KK	1200	AN	1202	PB	PB

PB 4/29/15

N = Normal Leth = Err = Swimming A = NF = Not D = Dead Obs.= Observation

Reftox

		Test Day 0	Date 4/21	Test Day 1	Date 4/22	Test Day 2	Date 4/23	Test Day 3	Date 4/24	Test Day 4	Date 4/25	Test Day 5	Date 4/26	Test Day 6	Date 4/27	Test Day 7	Date 4/28	Date 4/23/15	Date 4/29/15
3	A	10 loaded		10	N	10	N	9	1D	9	N	9	N	9	N	8	1D	1.1266	1.1357
	B			9	1D	9	N	9	~~N~~ AS SEB 4/24	9	N	9	N	9	N	9	N	1.0878	1.0987
	C			10	N	10	N	8	2D	6	2D	6	N	6	N	~~N~~ 6	N	1.0860	1.0947
	D			10	N	10	N	9	1D	9	N	9	N	9	N	9	N	1.0779	1.0890
	E																		
	F																		
6	A			9	1D	9	N	5	4D	5	N	5	N	5	N	5	N	1.0803	1.0865
	B			10	N	10	N	4	6D	4	N	4	N	4	N	2	2D		1.0903
	C			8	2D	8	N	1	7D	1	N	1	N	1	N	1	N	1.0888	1.0758
	D			10	N	10	N	4	6D	4	N	4	N	4	N	4	N	1.0750	1.0934
	E																	1.0903	
	F																		
12	A			Ø	10D														
	B			Ø	10D														
	C			Ø	10D														
	D			Ø	10D														
	E																		
	F																		
Date recorded by:		Initials AN	Time 1330	Initials KK	Time 1202	Initials KK	Time 1100	Initials SEB	Time 1105	Initials KK	Time 1400	Initials AN	Time 1315	Initials KK	Time 1200	Initials AN	Time 1202	Initials PB	Initials PB

PB
TE
4/23/15

N = Normal Leth = Lethargic Err = Swimming Erratically A = Alive NF = Not Found D = Dead

CETIS Summary Report

Report Date: 30 Apr-15 12:50 (p 1 of 2)
Test Code: 12-6491-7376/RT7DPP20150421

Fathead Minnow 7-d Larval Survival and Growth Test — **AMEC Biology-Toxicology LAB**

Batch ID:	03-3094-7149	**Test Type:**	Growth-Survival (7d)	**Analyst:**	
Start Date:	21 Apr-15	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Mod-Hard Synthetic Water
Ending Date:	28 Apr-15	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Duration:	7d 0h	**Source:**	Hydrosphere	**Age:**	<24h

Sample ID:	16-5980-4758	**Code:**	62EE9C56	**Client:**	ADMIN
Sample Date:	20 Apr-15	**Material:**	Sodium chloride	**Project:**	ADMIN
Receive Date:	21 Apr-15	**Source:**	Reference Toxicant		
Sample Age:	24h	**Station:**	In House		

Point Estimate Summary

Analysis ID	Endpoint	Level	gm/L	95% LCL	95% UCL	TU	Method
20-0665-5374	7d Survival Rate	LC5	2.34	1.59	2.91		Linear Regression (MLE)
		LC10	2.72	1.97	3.28		
		LC15	3.01	2.28	3.57		
		LC20	3.27	2.54	3.82		
		LC25	3.5	2.79	4.06		
		LC40	4.17	3.51	4.77		
		LC50	4.63	3.99	5.3		
01-8113-1122	Mean Dry Biomass-mg	IC5	2.07	0.663	3.73		Linear Interpolation (ICPIN)
		IC10	2.77	1.06	3.56		
		IC15	3.12	1.86	3.62		
		IC20	3.3	2.66	3.8		
		IC25	3.48	2.98	3.95		
		IC40	4.07	3.6	4.57		
		IC50	4.52	4.01	5.07		

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
20-0665-5374	7d Survival Rate	Control Resp	0.95	0.8 - NL	Yes	Result Within Limits
01-8113-1122	Mean Dry Biomass-mg	Control Resp	0.962	0.25 - NL	Yes	Result Within Limits

7d Survival Rate Summary

Conc-gm/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	4	0.95	0.928	0.972	0.9	1	0.0105	0.0577	6.08%	0.0%
0.75		4	0.975	0.956	0.994	0.9	1	0.00913	0.05	5.13%	-2.63%
1.5		4	1	1	1	1	1	0	0	0.0%	-5.26%
3		4	0.8	0.747	0.853	0.6	0.9	0.0258	0.141	17.7%	15.8%
6		4	0.3	0.232	0.368	0.1	0.5	0.0333	0.183	60.9%	68.4%
12		4	0	0	0	0	0	0	0		100.0%

Mean Dry Biomass-mg Summary

Conc-gm/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Dilution Water	4	0.962	0.919	1.01	0.82	1.08	0.0212	0.116	12.1%	0.0%
0.75		4	1.22	1.16	1.29	1.04	1.4	0.0307	0.168	13.7%	-27.3%
1.5		4	1.18	1.12	1.25	1.02	1.4	0.0322	0.176	14.9%	-22.9%
3		4	0.995	0.949	1.04	0.87	1.11	0.0224	0.123	12.3%	-3.38%
6		4	0.24	0.183	0.297	0.08	0.42	0.0281	0.154	64.1%	75.1%
12		4	0	0	0	0	0	0	0		100.0%

CETIS Summary Report

Report Date: 30 Apr-15 12:50 (p 2 of 2)
Test Code: 12-6491-7376/RT7DPP20150421

Fathead Minnow 7-d Larval Survival and Growth Test · **AMEC Biology-Toxicology LAB**

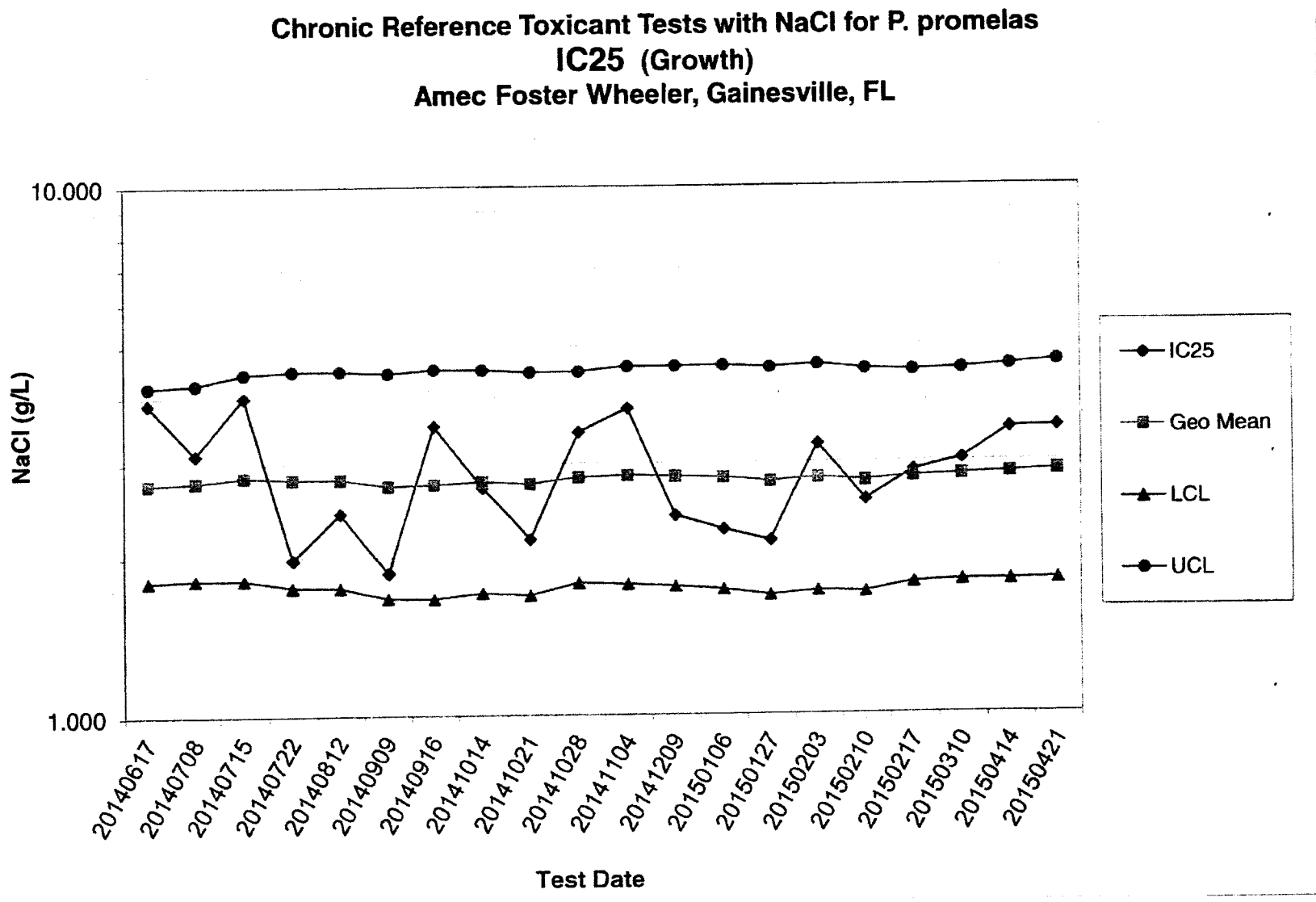
7d Survival Rate Detail

Conc-gm/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	0.9	0.9	1	1
0.75		0.9	1	1	1
1.5		1	1	1	1
3		0.8	0.9	0.6	0.9
6		0.5	0.2	0.1	0.4
12		0	0	0	0

Mean Dry Biomass-mg Detail

Conc-gm/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Dilution Water	0.82	0.92	1.08	1.03
0.75		1.13	1.4	1.33	1.04
1.5		1.4	1.25	1.06	1.02
3		0.91	1.09	0.87	1.11
6		0.42	0.15	0.08	0.31
12		0	0	0	0

Analyst: PB QA: SM


Chronic Reference Toxicant Tests with NaCl for P. promelas
IC25 (Growth)
Amec Foster Wheeler, Gainesville, FL
10.000
1.000
NaCl (g/L)
20140617
20140708
20140715
20140722
20140812
20140909
20140916
20141014
20141021
20141028
20141104
20141209
20150106
20150127
20150203
20150210
20150217
20150310
20150414
20150421
Test Date
IC25
Geo Mean
LCL
UCL

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#12

Environmental Affairs
Bin 10221
241 Ralph McGill Blvd. NE
Atlanta, Georgia 30308

Georgia Power

February 28, 2017
CERTIFIED MAIL

Mr. Richard E. Dunn, Director
2 Martin Luther King Jr. Drive, SE
14th Floor, East Tower - Suite 1456
Atlanta, GA 30334-9000

RE: Plant Branch
NPDES Permit No. GA0026051
Application for Permit Renewal

Dear Mr. Dunn:

Attached is an updated NPDES permit renewal application package for Georgia Power Company's Plant Branch facility, located in Putnam County, Georgia. In addition to the required EPA Forms 1 and 2C, the application package includes a topographic map showing the facility location and outfall, testing results and permit application supplemental form. The plant was retired in April 2015, so the application has been updated to reflect the elimination of certain waste streams and outfalls.

If you need additional information or have questions regarding this matter, please contact Jean Brown at 404-506-6360 or jeabrown@southernco.com.

Sincerely,

Burns Wetherington, P.E.
Environmental Affairs Manager, Water Programs

Attachments

cc: Ms. Audra Dickson, EPD Industrial Permitting Unit, with attachments

(fill-in areas are spaced for elite type, i.e, 12 characters/inch).

Form Approved. OMB No. 2040-0086. Approval expires 5-31-92

FORM **1** GENERAL

U. S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

S													T/A	C
F	G	A	D	0	0	0	6	1	2	8	9	5		D
1	2											13	14	15

LABEL ITEMS

- I. EPA I.D. NUMBER
- III. FACILITY NAME
- V. FACILITY MAILING ADDRESS
- VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data is absent (the area to the left of the label space list the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold-faced terms.**

SPECIFIC QUESTIONS	MARK "X" YES	NO	FORM ATTACHED	SPECIFIC QUESTIONS	MARK "X" YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge to waters of the U.S.**? (FORM 2A)	16	X 17	18	B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge to waters of the U.S.**? (FORM 2B)	19	X 20	21
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X 22	23	X 24	D. Is this a proposed facility (other than those described in A or B above) which will result in a **discharge** to waters of the U.S.? (FORM 2D)	25	X 26	27
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)	28	X 29	30	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)	31	X 32	33
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)	34	X 35	36	H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)	37	X 38	39
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)	40	X 41	42	J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)	43	X 44	45

III. NAME OF FACILITY

C 1 SKIP PLANT BRANCH (15–16, 29–30 … 69)

IV. FACILITY CONTACT

A. NAME & TITLE (*last, first, & title*)	B. PHONE (*area code & no.*)		
C 2 Berry, Mark, VP, Environmental Affairs (15–16 … 45)	404 (46–48)	506 (49–51)	7777 (52–55)

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

C 3 241 RALPH MCGILL BLVD., N.E. (15–16 … 45)

B. CITY OR TOWN	C. STATE	D. ZIP CODE
C 4 ATLANTA (15–16 … 40)	GA (41–42)	30308 (47–51)

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

C 5 1100 MILLEDGEVILLE ROAD (15–16 … 45)

B. COUNTY NAME

PUTNAM (46 … 70)

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE
C 6 MILLEDGEVILLE (15–16 … 40)	GA (41–42)	31061 (47–51)	N/A (52–54)

CONTINUE ON REVERSE

VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST			B. SECOND		
C 7	4911	(specify) Generation of Electricity	C 7		(specify) N/A
15	16 19		15	16 19	

C. THIRD			D. FOURTH		
C 7		(specify) N/A	C 7		(specify) N/A
15	16 19		15	16 19	

VIII. OPERATOR INFORMATION

A. NAME

C 8 GEORGIA POWER COMPANY (15–55)

B. Is the name listed in Item VIII-A also the owner? ☒ YES ☐ NO (66)

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box; if "Other", specify.)*

F = FEDERAL
S = STATE
P = PRIVATE
M = PUBLIC *(other than federal or state)*
O = OTHER *(specify)*

P (56) *(specify)*

D. PHONE *(area code & no.)*

C A (15) 404 (16–18) 506 (19–21) 6526 (22–25)

E. STREET OR P.O. BOX

241 RALPH MCGILL BLVD., N.E. (28–55)

F. CITY OR TOWN	G. STATE	H. ZIP CODE
C B ATLANTA (15–40)	GA (41–42)	30308 (47–51)

IX. INDIAN LAND

Is the facility located on Indian lands? ☐ YES ☒ NO (52)

X. EXISTING ENVIRONMENTAL PERMITS

	C	T	I		
A. NPDES *(Discharges to Surface Water)*	9	N		GA0026051	(15–30)
D. PSD *(Air Emissions from Proposed Sources)*	9	P		N/A	(15–30)
B. UIC *(Underground Injection of Fluids)*	9	U		N/A	(15–30)
E. OTHER *(specify)*	9			N/A	(specify) (15–30)
C. RCRA *(Hazardous Wastes)*	9	R		N/A	(15–30)
E. OTHER *(specify)*	9			N/A	(specify) (15–30)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a brief description)*

Previous generation of electricity through combustion of fossil fuels.

XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
Mark S. Berry, VP, Env. Affairs	Mark S. Berry	2/28/2017

COMMENTS FOR OFFICIAL USE ONLY

C C (15–55)

Please print or type in the unshaded areas only.

EPA I.D. (*copy from Item 1 of Form 1*)
GAD000612895

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

FORM 2C NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NO. (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
03	33	11	45	- 83	17	53	Lake Sinclair
04	33	11	10	- 83	18	17	Lake Sinclair
05	33	11	54	- 83	19	21	Lake Sinclair
06	33	11	19	- 83	18	08	Lake Sinclair

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO (*list*)	2. OPERATION (S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
03	Final Ash Pond Discharge – Storm Water	*	4,000 GPM (max)	4A	1U, 1G, 2C
04	Ash Pond "C" Emergency Overflow – Storm Water	*	7,500 GPM (max)	4A	1U
05	Ash Pond "E" Emergency Overflow – Storm Water	*	3,600 GPM (max)	4A	1U
06	Ash Pond "B" Emergency Overflow – Storm Water	*	7,500 GPM (max)	4A	1U

* Intermittent or Emergency Flow

OFFICIAL USE ONLY (effluent guidelines sub-categories)

 CONTINUE ON PAGE 1b

Please print or type in the unshaded areas only.

EPA I.D. (*copy from Item 1 of Form 1*)
GAD000612895

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

FORM 2C NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NO. (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO (*list*)	2. OPERATION (S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	

OFFICIAL USE ONLY (effluent guidelines sub-categories)

 CONTINUE ON PAGE 2

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items 11-A or B intermittent or seasonal?

☒ YES (complete the following table) ☐ NO (go to Section III)

1. OUTFALL NUMBER (list)	2. OPERATION(s) CONTRIBUTING FLOW (list)	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK (specify average)	b. MONTHS PER YEAR (specify average)	a. FLOW RATE (in mgd)		b. TOTAL VOLUME (specify with units)		c. DURATION (in days)
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	
04	Storm Water / Pond Closure / Plant Decommissioning	0	0	-	7,500 gpm	-	-	-
05	Storm Water / Pond Closure / Plant Decommissioning	0	0	-	3,600 gpm	-	-	-
06	Storm Water / Pond Closure / Plant Decommissioning	0	0	-	7,500 gpm	-	-	-

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ YES (complete Item III-B) ☐ NO (go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?

☐ YES (complete Item III-C) ☒ NO (go to Section IV)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS (*list outfall numbers*)
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	

IV. IMPROVEMENTS

A. Are you now required by any Federal, state or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (complete the following table) ☒ NO (go to Item IV-B)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	B. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAM IS ATTACHED

 CONTINUE ON PAGE 3

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*

GAD000612895

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS.

A, B, & C: See instructions before proceeding - Complete one set of tables for each outfall - Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
None			

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (list all such pollutants below) ☒ NO (go to Item VI-B)

 CONTINUE ON PAGE 4

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☒ YES (identify the test(s) and describe their purposes below) ☐ NO (go to Section VIII)

Whole Effluent Toxicity Testing was conducted August 21-28, 2015. The test report, dated May 8, 2015 is included in this permit application.

VIII CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contact laboratory or consulting firm?

☒ YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below) ☐ NO (go to Section IX)

A. NAME	B. ADDRESS	C. TELEPHONE *(area code & no.)*	D. POLLUTANTS ANALYZED *(list)*
Analytical Services Inc.	110 Technology Parkway Norcross, Georgia 30092	770-734-4200	All except pH and temperature.
Geochemical Testing	2005 N. Center Ave. Somerset, PA 15501	814-443-1671	Mercury
Amec Foster Wheeler	404 SW 140th Terrace Newberry, FL 32669	352-332-3318	Wet Testing

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designated to assure that qualified personal properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (type or print)	B. PHONE NO. (Area code & no.)
Mark S. Berry, Vice President, Environmental Affairs	(404) 506-7777
C. SIGNATURE Mark S. Berry	D. DATE SIGNED 2/28/2017

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
GAD000612895

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

PLANT BRANCH

OUTFALL NO. 03

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCEN-TRATION	b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	< 2						1	mg/l	lb/day	< 2		1
b. Chemical Oxygen Demand (COD)	< 10						1	mg/l	lb/day	< 10		1
c. Total Organic Carbon (TOC)	1.3						1	mg/l	lb/day	2.8		1
d. Total Suspended Solids (TSS)	< 5						1	mg/l	lb/day	6		1
e. Ammonia *(as N)*	0.19						1	mg/l	lb/day	0.24		1
f. Flow	VALUE 4,000		VALUE		VALUE			gpm		VALUE		
g. Temperature *(winter)*	VALUE 11.1		VALUE		VALUE		1	°C		VALUE		
h. Temperature *(summer)*	VALUE 30.4		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM 7.0	MAXIMUM 7.0	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B - Mark "X: in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data for an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO. OF ANAL-YESES	4. UNITS a. CONCEN-TRATION	b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANAL-YSES
a. Bromide (24959-67-9)			< 1.0						1	mg/l	lb/day	< 0.1		1
b. Chlorine, Total Residual			0.1						1	mg/l		0.1		1
c. Color			< 5						1	PCU		10		1
d. Fecal Coliform			78						1	col/100 ml		140		1
e. Fluoride (16984-48-8)			0.2						1	mg/l	lb/day	< 0.1		1
f. Nitrate-Nitrite *(as N)*			0.85						1	mg/l	lb/day	< 0.05		1

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic *(as N)*			< 0.4						1	mg/l	lb/day	<0 .4		1
h. Oil and Grease			< 5.7						1	mg/l	lb/day	< 5.6		1
I. Phosphorus (as P) Total (7723-14-0)			< 0.02						1	mg/l	lb/day	0.02		1
J. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate *(as SO_4)* (14808-79-8)			80						1	mg/l	lb/day	< 5.0		1
l. Sulfide *(as SO_3)* (14265-45-3)			< 0.2						1	mg/l	lb/day	< 0.2		1
m. Sulfite *(as SO_3)* (14265-45-3)			1.28						1	mg/l	lb/day	0.64		1
n. Surfactants			< 0.05						1	mg/l	lb/day	< 0.05		1
o. Aluminum, Total (7440-39-3)			< 0.1						1	mg/l	lb/day	0.17		1
p. Barium, Total (7440-39-3)			0.054						1	mg/l	lb/day	0.024		1
q. Boron, Total (7440-42-8)			0.402						1	mg/l	lb/day	< 0.04		1
r. Cobalt, Total (7440-48-4)			< 0.04						1	mg/l	lb/day	< 0.04		1
s. Iron, Total (7439-89-6)			0.108						1	mg/l	lb/day	0.219		1
t. Magnesium, Total (7439-95-4)			4.88						1	mg/l	lb/day	2.48		1
u. Molybdenum, Total (7439-98-7)			< 0.04						1	mg/l	lb/day	< 0.04		1
v. Manganese, Total (7439-96-5)			< 0.04						1	mg/l	lb/day	0.66		1
w. Tin, Total (7440-31-5)			< 0.04						1	mg/l	lb/day	< 0.04		1
x. Titanium, Total (7440-32-6)			< 0.1						1	mg/l	lb/day	< 0.1		1

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	03

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industryand for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for the pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2.4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			< 0.05						1	mg/l	lb/day	< 0.05		1
2M. Arsenic, Total (7440-38-2)	X			< 0.03						1	mg/l	lb/day	< 0.03		1
3M. Beryllium, Total, 7440-41-7	X			< 0.01						1	mg/l	lb/day	< 0.01		1
4M. Cadmium, Total (7440-43-9)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
5M. Chromium Total (7440-47-3)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
6M. Copper, Total (7440-50-8)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
7M. Lead, Total (7439-92-1)	X			< 0.025						1	mg/l	lb/day	< 0.025		1
8M. Mercury, Total (7439-97-6)	X			< 0.00001						1	mg/l	lb/day	0.0000342		1
9M. Nickel, Total (7440-02-0)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
10M. Selenium, Total (7782-49-2)	X			< 0.04						1	mg/l	lb/day	< 0.04		1
11M. Silver, Total (7440-22-4)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
12M. Thallium, Total (7440-28-0)	X			< 0.2						1	mg/l	lb/day	< 0.2		1
13M. Zinc, Total (7440-66-6)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
14M. Cyanide, Total (57-12-5)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
15M. Phenols, Total	X			< 0.05						1	mg/l	lb/day	< 0.05		1
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

CONTINUE ON REVERSE

GA0026051 – GPC PLANT BRANCH 2017

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1V. Acrolein (107-02-8)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
2V. Acrylonitrile (107-13-1)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
3V. Benzene (71-43-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
4V. Bis*(Chloromethyl)* Ether (542-88-1)			X							1	mg/l	lb/day			1
5V. Bromoform (75-25-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
6V. Carbon Tetrachloride(56-23-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
7V. Chlorobenzene (108-90-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
8V. Chlorodibromo-methane (124-48-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9V. Chloroethane (75-00-3)	X			< 0.005						1	mg/l	lb/day	< 0.005		1
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11V. Chloroform (67-66-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
12V. Dichlorobromo-methane (75-71-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
13V. Dichlorodifluoro-methane (75-71-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
14V. 1,1-Dichloro-ethane (75-34-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
15V. 1,2-Dichloro-ethane (107-06-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
16V. 1,1-Dichloro-ethylene (75-35-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
17V. 1,2-Dichloro-propane (78-87-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
18V. 1,3-Dichloro-propylene (542-75-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
19V. Ethylbenzene (100-41-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
20V. Methyl Bromide (74-83-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
21V. Methyl Chloride (74-87-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	03

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing	b. Believed	b. Believed	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	Required	Present	Absent	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
23V.1,1,2,2Tetra-chloroethane (79-34-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
24V. Tetrachloroethylene (127-18-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
25V. Toluene (108-88-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
26V. 1,2-Trans-Dichloro-ethylene (156-60-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
27V. 1,1,1-Trichloroethane (71-56-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
28V. 1,1,2-Trichloroethane (79-00-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
29V. Trichloroethylene (79-01-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
30V. Trichlorofluoro-methane (75-69-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
31V. Vinyl Chloride (75-01-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
GC/MS FRACTION — ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
2A. 2,4-Dichlorophenol (120-83-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
3A. 2,4-Dimethylphenol (105-67-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
5A. 2,4-Dinitrophenol (51-28-5)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
6A. 2-Nitrophenol (88-75-5)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
7A. 4-Nitrophenol (100-02-7)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
8A. P-Chloro-M-Cresol (59-50-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9A. Pentachlorophenol (87-86-5)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
10A. Phenol (108-95-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11A. 2,4,6-Trichloro-phenol (88-06-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
2B. Acenaphtylene (208-96-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
3B. Anthracene (120-12-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
4B. Benzidine (92-87-5)	X			<0 .080						1	mg/l	lb/day	< 0.080		1
5B. Benzo *(a)* Anthracene (56-55-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
6B. Benzo *(a)* Pyrene (50-32-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
7B. 3,4-Benzo-fluoranthene (205-99-2	X			< 0.010						1	mg/l	lb/day	< 0.010		1
8B. Benzo *(ghi)* Perylene (191-24-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9B. Benzo *(k)*Fluoranthene (207-08-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
15B. Butyl Benzyl Phthalate (85-68-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
16B. 2-Chloronaphthalene (91-58-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
18B. Chrysene (218-01-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
20B. 1,2-Dichloro-benzene (95-50-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
21B. 1,3-Dichloro-benzene (541-73-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	03

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
23B. 3,3-Dichlorobenzidine (91-94-1)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
24B. Diethyl Phthalate (84-66-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
25B. Dimethyl Phthalate (131-11-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
26B. Di-N-Butyl Phthalate (84-74-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
27B. 2,4-Dinitrotoluene (121-14-2)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
28B. 2,6-Dinitrotoluene (606-20-2)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
29B. Di-N-OctylPhthalate (117-84-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
30B. 1,2-Diphenyl-hydrazine *(as Azobenzene)* (122-66-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
31B. Fluoranthene (206-44-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
32B. Fluorene (86-73-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
33B. Hexachlorobenzene (118-74-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
34B. Hexachlorobutadiene (87-68-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
35B. Hexachlorocyclo-pentadiene (77-47-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
36B. Hexachloroethane (67-72-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
38B. Isophorone (78-59-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
39B. Naphthalene (91-20-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
40B. Nitrobenzene (98-95-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
41B. N-Nitrosodimethylamine (62-75-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

CONTINUE ON REVERSE

GA0026051 – GPC PLANT BRANCH 2017

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6	X			< 0.010						1	mg/l	lb/day	< 0.010		1
44B. Phenanthrene (85-01-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
45B. Pyrene (129-00-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
46B. 1,2,4-Trichlorobenzene (120-82-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
1P. Aldrin (309-00-2)			X								mg/l	lb/day			
2P. α-BHC (319-84-6)			X								mg/l	lb/day			
3P. β-BHC (319-85-7)			X								mg/l	lb/day			
4P. γ-BHC (58-89-9)			X								mg/l	lb/day			
5P. δ-BHC (319-86-8)			X								mg/l	lb/day			
6P. Chlordane (57-74-9)			X								mg/l	lb/day			
7P. 4,4'-DDT (50-29-3)			X								mg/l	lb/day			
8P. 4,4'-DDE (72-55-9)			X								mg/l	lb/day			
9P. 4,4'-DDD (72-54-8)			X								mg/l	lb/day			
10P. Dieldrin (60-57-1)			X								mg/l	lb/day			
11P. α-Endosulfan (115-29-7)			X								mg/l	lb/day			
12P. β-Endosulfan (115-29-7)			X								mg/l	lb/day			
13P. Endosulfan Sulfate (1031-07-8)			X								mg/l	lb/day			
14P. Endrin (72-20-8)			X								mg/l	lb/day			
15P. Endrin Aldehyde (7421-93-4)			X								mg/l	lb/day			
16P. Heptachlor (76-44-8)			X								mg/l	lb/day			

CONTINUE ON PAGE V-9

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CONTINUED FROM PAGE V-8

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	03

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			X								mg/l	lb/day			
18P. PCB-1242 (53469-21-9)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
19P. PCB-1254 (11097-69-1)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
20P. PCB-1221 (11104-28-2)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
21P. PCB-1232 (11141-16-5)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
22P. PCB-1248 (12672-29-6)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
23P. PCB-1260 (11096-82-5)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
24P. PCB-1016 (12674-11-2)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
25P. Toxaphene (8001-35-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1

GA0026051 – GPC PLANT BRANCH 2017

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
GAD000612895

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V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

PLANT BRANCH

OUTFALL NO. 04

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCEN-TRATION	3. UNITS b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	< 2						1	mg/l	lb/day	< 2		1
b. Chemical Oxygen Demand (COD)	< 10						1	mg/l	lb/day	< 10		1
c. Total Organic Carbon (TOC)	1.3						1	mg/l	lb/day	2.8		1
d. Total Suspended Solids (TSS)	< 5						1	mg/l	lb/day	6		1
e. Ammonia *(as N)*	0.19						1	mg/l	lb/day	0.24		1
f. Flow	VALUE 7,500		VALUE		VALUE			gpm		VALUE		
g. Temperature *(winter)*	VALUE 11.1		VALUE		VALUE		1	°C		VALUE		
h. Temperature *(summer)*	VALUE 30.4		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM 7.0	MAXIMUM 7.0	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B - Mark "X: in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data for an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	2. MARK 'X' b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANAL-YESES	4. UNITS a. CONCEN-TRATION	4. UNITS b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANAL-YSES
a. Bromide (24959-67-9)			< 1.0						1	mg/l	lb/day	< 0.1		1
b. Chlorine, Total Residual			0.1						1	mg/l		0.1		1
c. Color			< 5						1	PCU		10		1
d. Fecal Coliform			78						1	col/100 ml		140		1
e. Fluoride (16984-48-8)			0.2						1	mg/l	lb/day	< 0.1		1
f. Nitrate-Nitrite *(as N)*			0.85						1	mg/l	lb/day	< 0.05		1

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic *(as N)*			< 0.4						1	mg/l	lb/day	<0 .4		1
h. Oil and Grease			< 5.7						1	mg/l	lb/day	< 5.6		1
I. Phosphorus (as P) Total (7723-14-0)			< 0.02						1	mg/l	lb/day	0.02		1
J. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate *(as SO_4)* (14808-79-8)			80						1	mg/l	lb/day	< 5.0		1
l. Sulfide *(as SO_3)* (14265-45-3)			< 0.2						1	mg/l	lb/day	< 0.2		1
m. Sulfite *(as SO_3)* (14265-45-3)			1.28						1	mg/l	lb/day	0.64		1
n. Surfactants			< 0.05						1	mg/l	lb/day	< 0.05		1
o. Aluminum, Total (7440-39-3)			< 0.1						1	mg/l	lb/day	0.17		1
p. Barium, Total (7440-39-3)			0.054						1	mg/l	lb/day	0.024		1
q. Boron, Total (7440-42-8)			0.402						1	mg/l	lb/day	< 0.04		1
r. Cobalt, Total (7440-48-4)			< 0.04						1	mg/l	lb/day	< 0.04		1
s. Iron, Total (7439-89-6)			0.108						1	mg/l	lb/day	0.219		1
t. Magnesium, Total (7439-95-4)			4.88						1	mg/l	lb/day	2.48		1
u. Molybdenum, Total (7439-98-7)			< 0.04						1	mg/l	lb/day	< 0.04		1
v. Manganese, Total (7439-96-5)			< 0.04						1	mg/l	lb/day	0.66		1
w. Tin, Total (7440-31-5)			< 0.04						1	mg/l	lb/day	< 0.04		1
x. Titanium, Total (7440-32-6)			< 0.1						1	mg/l	lb/day	< 0.1		1

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CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	04

Form Approved.
OMB No. 2040-0086
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PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industryand for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for the pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2.4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			< 0.05						1	mg/l	lb/day	< 0.05		1
2M. Arsenic, Total (7440-38-2)	X			< 0.03						1	mg/l	lb/day	< 0.03		1
3M. Beryllium, Total, 7440-41-7	X			< 0.01						1	mg/l	lb/day	< 0.01		1
4M. Cadmium, Total (7440-43-9)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
5M. Chromium Total (7440-47-3)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
6M. Copper, Total (7440-50-8)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
7M. Lead, Total (7439-92-1)	X			< 0.025						1	mg/l	lb/day	< 0.025		1
8M. Mercury, Total (7439-97-6)	X			< 0.00001						1	mg/l	lb/day	0.0000342		1
9M. Nickel, Total (7440-02-0)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
10M. Selenium, Total (7782-49-2)	X			< 0.04						1	mg/l	lb/day	< 0.04		1
11M. Silver, Total (7440-22-4)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
12M. Thallium, Total (7440-28-0)	X			< 0.2						1	mg/l	lb/day	< 0.2		1
13M. Zinc, Total (7440-66-6)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
14M. Cyanide, Total (57-12-5)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
15M. Phenols, Total	X			< 0.05						1	mg/l	lb/day	< 0.05		1
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1V. Acrolein (107-02-8)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
2V. Acrylonitrile (107-13-1)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
3V. Benzene (71-43-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
4V. Bis(*Chloromethyl*) Ether (542-88-1)			X							1	mg/l	lb/day			1
5V. Bromoform (75-25-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
6V. Carbon Tetrachloride(56-23-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
7V. Chlorobenzene (108-90-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
8V. Chlorodibromomethane (124-48-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9V. Chloroethane (75-00-3)	X			< 0.005						1	mg/l	lb/day	< 0.005		1
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11V. Chloroform (67-66-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
12V. Dichlorobromomethane (75-71-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
13V. Dichlorodifluoromethane (75-71-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
14V. 1,1-Dichloroethane (75-34-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
15V. 1,2-Dichloroethane (107-06-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
16V. 1,1-Dichloroethylene (75-35-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
17V. 1,2-Dichloropropane (78-87-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
18V. 1,3-Dichloropropylene (542-75-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
19V. Ethylbenzene (100-41-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
20V. Methyl Bromide (74-83-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
21V. Methyl Chloride (74-87-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	04

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1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing	b. Believed	b. Believed	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	Required	Present	Absent	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
23V.1,1,2,2Tetra-chloroethane (79-34-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
24V. Tetrachloroethylene (127-18-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
25V. Toluene (108-88-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
26V. 1,2-Trans-Dichloro-ethylene (156-60-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
27V. 1,1,1-Trichloroethane (71-56-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
28V. 1,1,2-Trichloroethane (79-00-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
29V. Trichloroethylene (79-01-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
30V. Trichlorofluoro-methane (75-69-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
31V. Vinyl Chloride (75-01-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
GC/MS FRACTION — ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
2A. 2,4-Dichlorophenol (120-83-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
3A. 2,4-Dimethylphenol (105-67-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
5A. 2,4-Dinitrophenol (51-28-5)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
6A. 2-Nitrophenol (88-75-5)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
7A. 4-Nitrophenol (100-02-7)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
8A. P-Chloro-M-Cresol (59-50-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9A. Pentachlorophenol (87-86-5)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
10A. Phenol (108-95-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11A. 2,4,6-Trichloro-phenol (88-06-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
2B. Acenaphtylene (208-96-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
3B. Anthracene (120-12-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
4B. Benzidine (92-87-5)	X			<0 .080						1	mg/l	lb/day	< 0.080		1
5B. Benzo *(a)* Anthracene (56-55-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
6B. Benzo *(a)* Pyrene (50-32-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
7B. 3,4-Benzo-fluoranthene (205-99-2	X			< 0.010						1	mg/l	lb/day	< 0.010		1
8B. Benzo *(ghi)* Perylene (191-24-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9B. Benzo *(k)*Fluoranthene (207-08-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
15B. Butyl Benzyl Phthalate (85-68-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
16B. 2-Chloronaphthalene (91-58-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
18B. Chrysene (218-01-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
20B. 1,2-Dichloro-benzene (95-50-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
21B. 1,3-Dichloro-benzene (541-73-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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CONTINUED FROM PAGE V-6

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	04

Form Approved.
OMB No. 2040-0086
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1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
23B. 3,3-Dichlorobenzidine (91-94-1)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
24B. Diethyl Phthalate (84-66-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
25B. Dimethyl Phthalate (131-11-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
26B. Di-N-Butyl Phthalate (84-74-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
27B. 2,4-Dinitrotoluene (121-14-2)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
28B. 2,6-Dinitrotoluene (606-20-2)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
29B. Di-N-OctylPhthalate (117-84-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
30B. 1,2-Diphenyl-hydrazine *(as Azobenzene)* (122-66-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
31B. Fluoranthene (206-44-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
32B. Fluorene (86-73-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
33B. Hexachlorobenzene (118-74-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
34B. Hexachlorobutadiene (87-68-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
35B. Hexachlorocyclo-pentadiene (77-47-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
36B. Hexachloroethane (67-72-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
38B. Isophorone (78-59-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
39B. Naphthalene (91-20-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
40B. Nitrobenzene (98-95-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
41B. N-Nitrosodimethylamine (62-75-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

CONTINUE ON REVERSE

GA0026051 – GPC PLANT BRANCH 2017

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6	X			< 0.010						1	mg/l	lb/day	< 0.010		1
44B. Phenanthrene (85-01-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
45B. Pyrene (129-00-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
46B. 1,2,4-Trichlorobenzene (120-82-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
1P. Aldrin (309-00-2)			X								mg/l	lb/day			
2P. α-BHC (319-84-6)			X								mg/l	lb/day			
3P. β-BHC (319-85-7)			X								mg/l	lb/day			
4P. γ-BHC (58-89-9)			X								mg/l	lb/day			
5P. δ-BHC (319-86-8)			X								mg/l	lb/day			
6P. Chlordane (57-74-9)			X								mg/l	lb/day			
7P. 4,4'-DDT (50-29-3)			X								mg/l	lb/day			
8P. 4,4'-DDE (72-55-9)			X								mg/l	lb/day			
9P. 4,4'-DDD (72-54-8)			X								mg/l	lb/day			
10P. Dieldrin (60-57-1)			X								mg/l	lb/day			
11P. α-Endosulfan (115-29-7)			X								mg/l	lb/day			
12P. β-Endosulfan (115-29-7)			X								mg/l	lb/day			
13P. Endosulfan Sulfate (1031-07-8)			X								mg/l	lb/day			
14P. Endrin (72-20-8)			X								mg/l	lb/day			
15P. Endrin Aldehyde (7421-93-4)			X								mg/l	lb/day			
16P. Heptachlor (76-44-8)			X								mg/l	lb/day			

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CONTINUED FROM PAGE V-8

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	04

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			X								mg/l	lb/day			
18P. PCB-1242 (53469-21-9)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
19P. PCB-1254 (11097-69-1)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
20P. PCB-1221 (11104-28-2)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
21P. PCB-1232 (11141-16-5)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
22P. PCB-1248 (12672-29-6)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
23P. PCB-1260 (11096-82-5)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
24P. PCB-1016 (12674-11-2)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
25P. Toxaphene (8001-35-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
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V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

PLANT BRANCH

OUTFALL NO. 05

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS				(1) CONCEN-TRATION	(2) MASS	
a. Biochemical Oxygen Demand (BOD)	< 2						1	mg/l	lb/day	< 2		1
b. Chemical Oxygen Demand (COD)	< 10						1	mg/l	lb/day	< 10		1
c. Total Organic Carbon (TOC)	1.3						1	mg/l	lb/day	2.8		1
d. Total Suspended Solids (TSS)	< 5						1	mg/l	lb/day	6		1
e. Ammonia *(as N)*	0.19						1	mg/l	lb/day	0.24		1
f. Flow	VALUE 3,600		VALUE		VALUE			gpm		VALUE		
g. Temperature *(winter)*	VALUE 11.1		VALUE		VALUE		1	°C		VALUE		
h. Temperature *(summer)*	VALUE 30.4		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM 7.0	MAXIMUM 7.0	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B - Mark "X: in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data for an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYESES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS				(1) CONCEN-TRATION	(2) MASS	
a. Bromide (24959-67-9)			< 1.0						1	mg/l	lb/day	< 0.1		1
b. Chlorine, Total Residual			0.1						1	mg/l		0.1		1
c. Color			< 5						1	PCU		10		1
d. Fecal Coliform			78						1	col/100 ml		140		1
e. Fluoride (16984-48-8)			0.2						1	mg/l	lb/day	< 0.1		1
f. Nitrate-Nitrite *(as N)*			0.85						1	mg/l	lb/day	< 0.05		1

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	2. MARK 'X' b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
g. Nitrogen, Total Organic *(as N)*			< 0.4						1	mg/l	lb/day	<0 .4		1
h. Oil and Grease			< 5.7						1	mg/l	lb/day	< 5.6		1
I. Phosphorus (as P) Total (7723-14-0)			< 0.02						1	mg/l	lb/day	0.02		1
J. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate *(as SO_4)* (14808-79-8)			80						1	mg/l	lb/day	< 5.0		1
l. Sulfide *(as SO_3)* (14265-45-3)			< 0.2						1	mg/l	lb/day	< 0.2		1
m. Sulfite *(as SO_3)* (14265-45-3)			1.28						1	mg/l	lb/day	0.64		1
n. Surfactants			< 0.05						1	mg/l	lb/day	< 0.05		1
o. Aluminum, Total (7440-39-3)			< 0.1						1	mg/l	lb/day	0.17		1
p. Barium, Total (7440-39-3)			0.054						1	mg/l	lb/day	0.024		1
q. Boron, Total (7440-42-8)			0.402						1	mg/l	lb/day	< 0.04		1
r. Cobalt, Total (7440-48-4)			< 0.04						1	mg/l	lb/day	< 0.04		1
s. Iron, Total (7439-89-6)			0.108						1	mg/l	lb/day	0.219		1
t. Magnesium, Total (7439-95-4)			4.88						1	mg/l	lb/day	2.48		1
u. Molybdenum, Total (7439-98-7)			< 0.04						1	mg/l	lb/day	< 0.04		1
v. Manganese, Total (7439-96-5)			< 0.04						1	mg/l	lb/day	0.66		1
w. Tin, Total (7440-31-5)			< 0.04						1	mg/l	lb/day	< 0.04		1
x. Titanium, Total (7440-32-6)			< 0.1						1	mg/l	lb/day	< 0.1		1

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CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	05

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industryand for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for the pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			< 0.05						1	mg/l	lb/day	< 0.05		1
2M. Arsenic, Total (7440-38-2)	X			< 0.03						1	mg/l	lb/day	< 0.03		1
3M. Beryllium, Total, 7440-41-7	X			< 0.01						1	mg/l	lb/day	< 0.01		1
4M. Cadmium, Total (7440-43-9)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
5M. Chromium Total (7440-47-3)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
6M. Copper, Total (7440-50-8)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
7M. Lead, Total (7439-92-1)	X			< 0.025						1	mg/l	lb/day	< 0.025		1
8M. Mercury, Total (7439-97-6)	X			< 0.00001						1	mg/l	lb/day	0.0000342		1
9M. Nickel, Total (7440-02-0)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
10M. Selenium, Total (7782-49-2)	X			< 0.04						1	mg/l	lb/day	< 0.04		1
11M. Silver, Total (7440-22-4)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
12M. Thallium, Total (7440-28-0)	X			< 0.2						1	mg/l	lb/day	< 0.2		1
13M. Zinc, Total (7440-66-6)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
14M. Cyanide, Total (57-12-5)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
15M. Phenols, Total	X			< 0.05						1	mg/l	lb/day	< 0.05		1
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

CONTINUE ON REVERSE

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CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1V. Acrolein (107-02-8)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
2V. Acrylonitrile (107-13-1)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
3V. Benzene (71-43-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
4V. Bis(*Chloromethyl*) Ether (542-88-1)			X							1	mg/l	lb/day			1
5V. Bromoform (75-25-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
6V. Carbon Tetrachloride(56-23-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
7V. Chlorobenzene (108-90-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
8V. Chlorodibromomethane (124-48-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9V. Chloroethane (75-00-3)	X			< 0.005						1	mg/l	lb/day	< 0.005		1
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11V. Chloroform (67-66-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
12V. Dichlorobromomethane (75-71-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
13V. Dichlorodifluoromethane (75-71-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
14V. 1,1-Dichloroethane (75-34-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
15V. 1,2-Dichloroethane (107-06-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
16V. 1,1-Dichloroethylene (75-35-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
17V. 1,2-Dichloropropane (78-87-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
18V. 1,3-Dichloropropylene (542-75-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
19V. Ethylbenzene (100-41-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
20V. Methyl Bromide (74-83-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
21V. Methyl Chloride (74-87-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	05

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing	b. Believed	b. Believed	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	Required	Present	Absent	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
23V.1,1,2,2Tetra-chloroethane (79-34-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
24V. Tetrachloroethylene (127-18-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
25V. Toluene (108-88-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
26V. 1,2-Trans-Dichloro-ethylene (156-60-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
27V. 1,1,1-Trichloroethane (71-56-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
28V. 1,1,2-Trichloroethane (79-00-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
29V. Trichloroethylene (79-01-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
30V. Trichlorofluoro-methane (75-69-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
31V. Vinyl Chloride (75-01-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
GC/MS FRACTION — ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
2A. 2,4-Dichlorophenol (120-83-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
3A. 2,4-Dimethylphenol (105-67-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
5A. 2,4-Dinitrophenol (51-28-5)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
6A. 2-Nitrophenol (88-75-5)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
7A. 4-Nitrophenol (100-02-7)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
8A. P-Chloro-M-Cresol (59-50-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9A. Pentachlorophenol (87-86-5)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
10A. Phenol (108-95-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11A. 2,4,6-Trichloro-phenol (88-06-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

CONTINUE ON REVERSE

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CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
2B. Acenaphtylene (208-96-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
3B. Anthracene (120-12-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
4B. Benzidine (92-87-5)	X			<0 .080						1	mg/l	lb/day	< 0.080		1
5B. Benzo *(a)* Anthracene (56-55-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
6B. Benzo *(a)* Pyrene (50-32-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
7B. 3,4-Benzo-fluoranthene (205-99-2	X			< 0.010						1	mg/l	lb/day	< 0.010		1
8B. Benzo *(ghi)* Perylene (191-24-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9B. Benzo *(k)*Fluoranthene (207-08-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
15B. Butyl Benzyl Phthalate (85-68-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
16B. 2-Chloronaphthalene (91-58-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
18B. Chrysene (218-01-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
20B. 1,2-Dichloro-benzene (95-50-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
21B. 1,3-Dichloro-benzene (541-73-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	05

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing	b. Believed	b. Believed	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	Required	Present	Absent	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
23B. 3,3-Dichlorobenzidine (91-94-1)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
24B. Diethyl Phthalate (84-66-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
25B. Dimethyl Phthalate (131-11-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
26B. Di-N-Butyl Phthalate (84-74-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
27B. 2,4-Dinitrotoluene (121-14-2)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
28B. 2,6-Dinitrotoluene (606-20-2)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
29B. Di-N-OctylPhthalate (117-84-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
30B. 1,2-Diphenyl-hydrazine *(as Azobenzene)* (122-66-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
31B. Fluoranthene (206-44-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
32B. Fluorene (86-73-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
33B. Hexachlorobenzene (118-74-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
34B. Hexachlorobutadiene (87-68-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
35B. Hexachlorocyclo-pentadiene (77-47-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
36B. Hexachloroethane (67-72-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
38B. Isophorone (78-59-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
39B. Naphthalene (91-20-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
40B. Nitrobenzene (98-95-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
41B. N-Nitrosodimethylamine (62-75-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

CONTINUE ON REVERSE

GA0026051 – GPC PLANT BRANCH 2017

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6	X			< 0.010						1	mg/l	lb/day	< 0.010		1
44B. Phenanthrene (85-01-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
45B. Pyrene (129-00-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
46B. 1,2,4-Trichlorobenzene (120-82-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
1P. Aldrin (309-00-2)			X								mg/l	lb/day			
2P. α-BHC (319-84-6)			X								mg/l	lb/day			
3P. β-BHC (319-85-7)			X								mg/l	lb/day			
4P. γ-BHC (58-89-9)			X								mg/l	lb/day			
5P. δ-BHC (319-86-8)			X								mg/l	lb/day			
6P. Chlordane (57-74-9)			X								mg/l	lb/day			
7P. 4,4'-DDT (50-29-3)			X								mg/l	lb/day			
8P. 4,4'-DDE (72-55-9)			X								mg/l	lb/day			
9P. 4,4'-DDD (72-54-8)			X								mg/l	lb/day			
10P. Dieldrin (60-57-1)			X								mg/l	lb/day			
11P. α-Endosulfan (115-29-7)			X								mg/l	lb/day			
12P. β-Endosulfan (115-29-7)			X								mg/l	lb/day			
13P. Endosulfan Sulfate (1031-07-8)			X								mg/l	lb/day			
14P. Endrin (72-20-8)			X								mg/l	lb/day			
15P. Endrin Aldehyde (7421-93-4)			X								mg/l	lb/day			
16P. Heptachlor (76-44-8)			X								mg/l	lb/day			

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	05

Form Approved.
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1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			X								mg/l	lb/day			
18P. PCB-1242 (53469-21-9)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
19P. PCB-1254 (11097-69-1)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
20P. PCB-1221 (11104-28-2)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
21P. PCB-1232 (11141-16-5)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
22P. PCB-1248 (12672-29-6)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
23P. PCB-1260 (11096-82-5)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
24P. PCB-1016 (12674-11-2)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
25P. Toxaphene (8001-35-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1

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PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
GAD000612895

Form Approved.
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Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

PLANT BRANCH

OUTFALL NO. 06

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCEN-TRATION	b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	< 2						1	mg/l	lb/day	< 2		1
b. Chemical Oxygen Demand (COD)	< 10						1	mg/l	lb/day	< 10		1
c. Total Organic Carbon (TOC)	1.3						1	mg/l	lb/day	2.8		1
d. Total Suspended Solids (TSS)	< 5						1	mg/l	lb/day	6		1
e. Ammonia *(as N)*	0.19						1	mg/l	lb/day	0.24		1
f. Flow	VALUE 7,500		VALUE		VALUE			gpm		VALUE		
g. Temperature *(winter)*	VALUE 11.1		VALUE		VALUE		1	°C		VALUE		
h. Temperature *(summer)*	VALUE 30.4		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM 7.0	MAXIMUM 7.0	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B - Mark "X: in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data for an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO. OF ANAL-YESES	4. UNITS a. CONCEN-TRATION	b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANAL-YSES
a. Bromide (24959-67-9)			< 1.0						1	mg/l	lb/day	< 0.1		1
b. Chlorine, Total Residual			0.1						1	mg/l		0.1		1
c. Color			< 5						1	PCU		10		1
d. Fecal Coliform			78						1	col/100 ml		140		1
e. Fluoride (16984-48-8)			0.2						1	mg/l	lb/day	< 0.1		1
f. Nitrate-Nitrite *(as N)*			0.85						1	mg/l	lb/day	< 0.05		1

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic *(as N)*			< 0.4						1	mg/l	lb/day	<0 .4		1
h. Oil and Grease			< 5.7						1	mg/l	lb/day	< 5.6		1
I. Phosphorus (as P) Total (7723-14-0)			< 0.02						1	mg/l	lb/day	0.02		1
J. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate *(as SO_4)* (14808-79-8)			80						1	mg/l	lb/day	< 5.0		1
l. Sulfide *(as SO_3)* (14265-45-3)			< 0.2						1	mg/l	lb/day	< 0.2		1
m. Sulfite *(as SO_3)* (14265-45-3)			1.28						1	mg/l	lb/day	0.64		1
n. Surfactants			< 0.05						1	mg/l	lb/day	< 0.05		1
o. Aluminum, Total (7440-39-3)			< 0.1						1	mg/l	lb/day	0.17		1
p. Barium, Total (7440-39-3)			0.054						1	mg/l	lb/day	0.024		1
q. Boron, Total (7440-42-8)			0.402						1	mg/l	lb/day	< 0.04		1
r. Cobalt, Total (7440-48-4)			< 0.04						1	mg/l	lb/day	< 0.04		1
s. Iron, Total (7439-89-6)			0.108						1	mg/l	lb/day	0.219		1
t. Magnesium, Total (7439-95-4)			4.88						1	mg/l	lb/day	2.48		1
u. Molybdenum, Total (7439-98-7)			< 0.04						1	mg/l	lb/day	< 0.04		1
v. Manganese, Total (7439-96-5)			< 0.04						1	mg/l	lb/day	0.66		1
w. Tin, Total (7440-31-5)			< 0.04						1	mg/l	lb/day	< 0.04		1
x. Titanium, Total (7440-32-6)			< 0.1						1	mg/l	lb/day	< 0.1		1

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PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industryand for AlL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for the pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2.4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			< 0.05						1	mg/l	lb/day	< 0.05		1
2M. Arsenic, Total (7440-38-2)	X			< 0.03						1	mg/l	lb/day	< 0.03		1
3M. Beryllium, Total, 7440-41-7	X			< 0.01						1	mg/l	lb/day	< 0.01		1
4M. Cadmium, Total (7440-43-9)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
5M. Chromium Total (7440-47-3)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
6M. Copper, Total (7440-50-8)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
7M. Lead, Total (7439-92-1)	X			< 0.025						1	mg/l	lb/day	< 0.025		1
8M. Mercury, Total (7439-97-6)	X			< 0.00001						1	mg/l	lb/day	0.0000342		1
9M. Nickel, Total (7440-02-0)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
10M. Selenium, Total (7782-49-2)	X			< 0.04						1	mg/l	lb/day	< 0.04		1
11M. Silver, Total (7440-22-4)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
12M. Thallium, Total (7440-28-0)	X			< 0.2						1	mg/l	lb/day	< 0.2		1
13M. Zinc, Total (7440-66-6)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
14M. Cyanide, Total (57-12-5)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
15M. Phenols, Total	X			< 0.05						1	mg/l	lb/day	< 0.05		1
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1V. Acrolein (107-02-8)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
2V. Acrylonitrile (107-13-1)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
3V. Benzene (71-43-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
4V. Bis(*Chloromethyl*) Ether (542-88-1)			X							1	mg/l	lb/day			1
5V. Bromoform (75-25-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
6V. Carbon Tetrachloride(56-23-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
7V. Chlorobenzene (108-90-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
8V. Chlorodibromomethane (124-48-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9V. Chloroethane (75-00-3)	X			< 0.005						1	mg/l	lb/day	< 0.005		1
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11V. Chloroform (67-66-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
12V. Dichlorobromomethane (75-71-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
13V. Dichlorodifluoromethane (75-71-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
14V. 1,1-Dichloroethane (75-34-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
15V. 1,2-Dichloroethane (107-06-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
16V. 1,1-Dichloroethylene (75-35-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
17V. 1,2-Dichloropropane (78-87-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
18V. 1,3-Dichloropropylene (542-75-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
19V. Ethylbenzene (100-41-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
20V. Methyl Bromide (74-83-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
21V. Methyl Chloride (74-87-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing	b. Believed	b. Believed	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	Required	Present	Absent	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
23V.1,1,2,2Tetra-chloroethane (79-34-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
24V. Tetrachloroethylene (127-18-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
25V. Toluene (108-88-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
26V. 1,2-Trans-Dichloro-ethylene (156-60-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
27V. 1,1,1-Trichloroethane (71-56-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
28V. 1,1,2-Trichloroethane (79-00-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
29V. Trichloroethylene (79-01-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
30V. Trichlorofluoro-methane (75-69-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
31V. Vinyl Chloride (75-01-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
GC/MS FRACTION — ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
2A. 2,4-Dichlorophenol (120-83-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
3A. 2,4-Dimethylphenol (105-67-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
5A. 2,4-Dinitrophenol (51-28-5)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
6A. 2-Nitrophenol (88-75-5)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
7A. 4-Nitrophenol (100-02-7)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
8A. P-Chloro-M-Cresol (59-50-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9A. Pentachlorophenol (87-86-5)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
10A. Phenol (108-95-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11A. 2,4,6-Trichloro-phenol (88-06-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
2B. Acenaphtylene (208-96-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
3B. Anthracene (120-12-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
4B. Benzidine (92-87-5)	X			<0 .080						1	mg/l	lb/day	< 0.080		1
5B. Benzo *(a)* Anthracene (56-55-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
6B. Benzo *(a)* Pyrene (50-32-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
7B. 3,4-Benzo-fluoranthene (205-99-2	X			< 0.010						1	mg/l	lb/day	< 0.010		1
8B. Benzo *(ghi)* Perylene (191-24-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9B. Benzo *(k)*Fluoranthene (207-08-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
15B. Butyl Benzyl Phthalate (85-68-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
16B. 2-Chloronaphthalene (91-58-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
18B. Chrysene (218-01-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
20B. 1,2-Dichloro-benzene (95-50-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
21B. 1,3-Dichloro-benzene (541-73-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
23B. 3,3-Dichlorobenzidine (91-94-1)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
24B. Diethyl Phthalate (84-66-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
25B. Dimethyl Phthalate (131-11-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
26B. Di-N-Butyl Phthalate (84-74-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
27B. 2,4-Dinitrotoluene (121-14-2)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
28B. 2,6-Dinitrotoluene (606-20-2)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
29B. Di-N-OctylPhthalate (117-84-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
30B. 1,2-Diphenyl-hydrazine *(as Azobenzene)* (122-66-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
31B. Fluoranthene (206-44-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
32B. Fluorene (86-73-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
33B. Hexachlorobenzene (118-74-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
34B. Hexachlorobutadiene (87-68-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
35B. Hexachlorocyclo-pentadiene (77-47-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
36B. Hexachloroethane (67-72-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
38B. Isophorone (78-59-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
39B. Naphthalene (91-20-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
40B. Nitrobenzene (98-95-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
41B. N-Nitrosodimethylamine (62-75-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6	X			< 0.010						1	mg/l	lb/day	< 0.010		1
44B. Phenanthrene (85-01-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
45B. Pyrene (129-00-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
46B. 1,2,4-Trichlorobenzene (120-82-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
1P. Aldrin (309-00-2)			X								mg/l	lb/day			
2P. α-BHC (319-84-6)			X								mg/l	lb/day			
3P. β-BHC (319-85-7)			X								mg/l	lb/day			
4P. γ-BHC (58-89-9)			X								mg/l	lb/day			
5P. δ-BHC (319-86-8)			X								mg/l	lb/day			
6P. Chlordane (57-74-9)			X								mg/l	lb/day			
7P. 4,4'-DDT (50-29-3)			X								mg/l	lb/day			
8P. 4,4'-DDE (72-55-9)			X								mg/l	lb/day			
9P. 4,4'-DDD (72-54-8)			X								mg/l	lb/day			
10P. Dieldrin (60-57-1)			X								mg/l	lb/day			
11P. α-Endosulfan (115-29-7)			X								mg/l	lb/day			
12P. β-Endosulfan (115-29-7)			X								mg/l	lb/day			
13P. Endosulfan Sulfate (1031-07-8)			X								mg/l	lb/day			
14P. Endrin (72-20-8)			X								mg/l	lb/day			
15P. Endrin Aldehyde (7421-93-4)			X								mg/l	lb/day			
16P. Heptachlor (76-44-8)			X								mg/l	lb/day			

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	06

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Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			X								mg/l	lb/day			
18P. PCB-1242 (53469-21-9)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
19P. PCB-1254 (11097-69-1)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
20P. PCB-1221 (11104-28-2)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
21P. PCB-1232 (11141-16-5)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
22P. PCB-1248 (12672-29-6)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
23P. PCB-1260 (11096-82-5)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
24P. PCB-1016 (12674-11-2)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
25P. Toxaphene (8001-35-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1

GA0026051 – GPC PLANT BRANCH 2017

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

NPDES Industrial Permit Application Addendum

Please check the applicable box and enter the associated information:

☐ New discharger — Name of facility: Georgia Power Plant Branch

☒ Existing NPDES discharger — Name of facility: — Existing NPDES Permit No.: GA0026051

SECTION I. CONTACT & FACILITY INFORMATION

Permit Application Contact Name (first & last): Jean Brown	
Title: Environmental Specialist	
E-mail Address: jeabrown@southernco.com	
Total Design Flow (MGD): 5.76	Actual Design Flow (MGD):
Facility Latitude/Longitude (ex. 34.5364, -84.8045): 33.1145, -83.1753	EPA Major (circle one): (*yes*) or *no*
Primary Industry (circle one): (*yes*) or *no*	NAICS Codes: 59221112

SECTION II. EFFLUENT LIMITS AND CONDITIONS

1. Is there an effluent limit, standard, guideline, or categorical pretreatment standard established for this type of discharge in 40 CFR Part 400-471, as amended or elsewhere pursuant to 301, 306, 307, 316, 318, or 405 of the Clean Water Act?

   ☒ Yes ☐ No

   If you answered "yes", to question No. 1 above, please complete the following table below by providing the name of the discharge category and the specific citation to the regulation, if applicable, that establishes the limitation or condition.

   If you answered "no" to question No. 1 above, please proceed to Section No. III.

Section II, Table No. 1

Name of Discharge Category and Appropriate Citation From State of Federal Regulations.	Effluent Limitation or Condition: (Yes or No)	Name of Subpart and Appropriate Subpart Citation
Example: ***Iron and Steel Manufacturing; 40 CFR Part 420***	***Yes***	***Acid Pickling; 40 CFR part 420 subpart I***
Steam Electric Power Generating Point Source Category	Yes	40 CFR Part 423

2. Are any of the applicable effluent limitations applicable to the discharge(s) expressed in terms of production?

☐ Yes ☒ No

If you answered "yes", complete the following table below. For an existing discharge, list an actual measurement of your average or maximum level of daily production. For new discharges, list an average or maximum projected daily production. (indicate in the table whether the production figures given are average or maximum level.) Express the production in terms and units used in the applicable discharge limitation. Attach additional sheets if necessary.

If you answered "no" to question No. 2 above, please proceed to Section III.

Section II, Table No. 2 – Applicable Effluent Limit Guidelines

Name of Category and Subpart	Name and Quantity of Product per Day with Units of Measure	Description of Process	No. of Cycles through Process
Example: ***40CFR Part 420 Subpart I. Iron and Steel Manufacturing; Hydrochloric Acid Pickling***	***27,000 lbs of stainless steel strips (average)***	***Stainless steel strips are passed through solder flux baths in #1 Tinner***	***2***

SECTION III. WATER QUALITY

1. Name of Georgia major river basin(s) in which your discharge(s) enters: Oconee River - Lake Sinclair

2. Do you discharge to 305(b)/303(d) Listed Waters*?

☒ Yes ☐ No

If you answered "yes" to question No.2 above, please complete the Table No. 1 below.

If you answered "no" to question No. 2 above, please proceed to Section IV.

** Georgia's 305(b)/303(d) list can be found on EPD's website at the following web address:*
http://epd.georgia.gov/georgia-305b303d-list-documents

Section III, Table No. 1 – Applicable Water Quality

Outfall Identification ID	Name of Receiving Waters	Is The Receiving Water: 1) Supporting The Designated Use; 2) Not Supporting The Designated Use; or 3) Assessment Pending.	If The Receiving Water(s) Is Not Supporting The Designated Uses, What Is It Listed For?
Example: 001	*Oconee River*	*2*	*Sedimentation and Mercury*
001	Lake Sinclair	2	Temp

3. Is there an applicable Total Maximum Daily Load* (TMDL) for the receiving waters?

☒ Yes ☐ No

If you answered "yes" to question No. 3 above, complete the following table below. If you answered "no" proceed to Section No. IV.

** Georgia's list of TMDL's can be found on EPD's website at the following web address:*
http://epd.georgia.gov/total-maximum-daily-loadings

Section III, Table No. 2 – Applicable TMDL

Outfall Identification	Name of Receiving Water	Is your discharge listed in the TMDL?	Name and Year of TMDL
Example: Outfall 003	*Jacks Creek a tributary to Oconee River*	*yes*	*Zinc TMDL Report [2002]*
003	Lake Sinclair	Yes	Lake Sinclair Temperature 2002

SECTION IV. SUMMARY OF DISCHARGE ANALYSIS*

If you are a new industrial discharger, you may omit this Section of the NPDES Application Addendum and proceed to Section V. If you are an existing facility with an existing NPDES wastewater permit, please proceed to question No. 1 of this Section below.

1. Complete the following table with a summary of discharge analytical data from the *previous three (3) years*. To complete the table for renewals, refer to your existing permit; for other discharges previously permitted by EPD, refer to your previous authorization or permit. Reproduce and complete Section IV of the NPDES Application Addendum form for each outfall that you are proposing to renew.

Outfall Identification (as referenced on permit and monitoring report): Ash Transport Blowdown and pH at Final Outfall

Parameter	Maximum Loading (lbs/day)	Average Loading (lbs/day)	Maximum Concentration (units)	Average Concentration (units)	Number of Exceedances	Comments
Ex. BOD 5-day	*325*	*204*	*22 (mg/L)*	*45 (mg/L)*	*3*	
Ex. pH	*NA*	*NA*	*10.0 (max. s.u.)*	*7.3 (min. s.u.)*	*2*	
01A - pH	NA	NA	7.3 (max s.u.)	6.4 (min s.u.)	0	Final Outfall
03 - TSS	NA	NA	13	4	0	Ash Transport Blowdown
03 - O&G	NA	NA	0	0	0	Ash Transport Blowdown

SECTION V. 40 CFR 122.21(r) COOLING WATER INTAKE STRUCTURES

Does the Cooling Water Intake Structure Rule for Existing Facilities Apply?

Directions: Answer questions 1 through 4 below for your cooling water intake structure(s) (CWIS). If your answer to any one of these questions is "No", then the requirements of 40 CFR 125.94 through 125.99 do not apply to your facility, and you may proceed to Section No. X. However, the State reserves the right to establish BPJ requirements as allowed in 40 CFR 125.90(b) for facilities.

Note: If you are a new facility please contact the GA EPD.

1. Is the facility a point source that discharges under a NPDES permit to waters of the State?

   ☒ Yes ☐ No

   If you answered "yes" to question No. 1 above, please proceed to question No. 2 below.

2. Is the cooling water intake structure withdrawing cooling water from waters of the State?

   ☐ Yes ☒ No

   If you answered "yes" to question No. 2 above, please proceed to question No. 3 below.

   Note: Obtaining cooling water from a public water system, using reclaimed water from wastewater treatment facilities or desalination plants, or recycling treated process wastewater effluent as cooling water does not constitute use of a cooling water intake structure.

3. Is the facility-wide design intake flow (DIF) for all cooling water intake structures at the facility greater than 2 MGD?

   ☐ Yes ☐ No

   If you answered "yes" to question No. 3 above, please provide the facility-wide design intake flow (DIF) and actual intake flow (AIF) for all cooling water intake structures in box 3.a.

   Note: Actual Intake Flow means the average volume of water withdrawn on an annual basis by the cooling water intake structures over the past three years

   3.a.

   DIF = _____ (mgd)

   AIF = _____ (mgd)

4. Does the facility have an intake structure that withdraws more than 25 percent of the water for cooling purposes on an actual intake flow basis?

   ☐ Yes ☐ No

   If you answered "yes" to question No. 4 above, please provide the AIF percentage used exclusively for cooling purposes in box 4.a.

   4.a.

   AIF = _____ %

Additional Information for Facilities to which the CWIS Rule applies

Section VI of this addendum lists the application requirements for all facilities for which the CWIS rule applies. The bullets below provide additional directions for which of following Sections VII, VIII and/or IX may also apply

- If you answered "yes" to question nos. 1, 2, 3 and 4 ***and*** you have an *existing unit at an existing facility*; the Impingement Mortality Best Technology Available (BTA) Standard, Section No. VII, applies to your facility.

- If you answered "yes" to question nos. 1, 2, 3 and 4 ***and*** your facility has a new unit at an existing facility; the Impingement Mortality BTA Standard, Section No. VIII, applies to you.

- If you answered "yes" to question nos. 1, 2, 3 and 4 **and** your facility withdraws greater than 125 MGD on an actual intake flow basis then the Entrainment BTA Standard, Section IX also applies to your facility.

What is the timing of the submission of information required in permit application under the 316(b) Rule? *(December 2014 EPA MEMO)*

If your permit expires prior to July 14, 2018, under 40 CFR Part 125.95(a)(2), a facility may request that the Director establish an alternative schedule for submission of some of the permit application information in 40 CFR Part 122.21(r), based on a showing of the owner or operator of the facility that it could not develop the information for which an alternative schedule is requested by the time required for the submission of the permit renewal application.

Please check the applicable box(s).

☐ I request the Director provide an alternative schedule for the submission of some of the permit application information in 40 CFR Part 122.21(r).

☐ I request the Director provide an alternative schedule for the submission of the following permit application requirements in 40 CFR Part 122.21(r).

- ☐ (2) Source water physical data
- ☐ (3) Cooling water intake structure data
- ☐ (4) Source water baseline biological characterization data
- ☐ (5) Cooling water system data
- ☐ (6) Chosen Method(s) of Compliance with Impingement Mortality Standard
- ☐ (7) Entrainment Performance Studies
- ☐ (8) Operational Status
- ☐ (9) Entrainment Characterization Study
- ☐ (10) Comprehensive Technical Feasibility and Cost Evaluation Study
- ☐ (11) Benefits Valuation Study
- ☐ (12) Non-water Quality Environmental and Other Impacts Study
- ☐ (13) Peer Review
- ☐ (H) All facilities must also submit with their permit application all information received as a result of any communication with a Field Office of the Fish and Wildlife Service and/or Regional Office of the National Marine Fisheries Service.

☐ I do not request an alternative schedule for the submission of some of the permit application information in 40 CFR Part 122.21(r). I have included the applicable permit application information required in 40 CFR Part 122.21(r).

SECTION VI. APPLICATION REQUIREMENTS FOR ALL EXISITNG FACILITIES

1. If you are an existing facility, then you are required to submit the following information in accordance with §122.21(r)(1)(ii)(A), as applicable, with your permit application.

Please check the box next to the required information which you are submitting with this application.

- ☐ (2) Source water physical data
- ☐ (3) Cooling water intake structure data
- ☐ (4) If applicable, Source water baseline biological characterization data
- ☐ (5) If applicable, Cooling water system data
- ☐ (6) If applicable, Chosen Method(s) of Compliance with Impingement Mortality Standard
- ☐ (7) If applicable, Entrainment Performance Studies
- ☐ (8) If applicable, Operational Status
- ☐ (H) All facilities must also submit with their permit application all information received as a result of any communication with a Field Office of the Fish and Wildlife Service and/or Regional Office of the National Marine Fisheries Service.

2. If you are an existing facility that withdraws greater than 125 mgd actual intake flow (AIF), as defined at 40 CFR 125.92 (a), of water for cooling purposes, then you are required to submit the following information in accordance with §122.21(r)(1)(ii)(B).

Please check the box next to the required information which you are submitting with this application.

- ☐ (2) Source water physical data
- ☐ (3) Cooling water intake structure data
- ☐ (9) Entrainment Characterization Study
- ☐ (10) Comprehensive Technical Feasibility and Cost Evaluation Study
- ☐ (11) Benefits Valuation Study
- ☐ (12) Non-water Quality Environmental and Other Impacts Study
- ☐ (13) Peer Review
- ☐ (H) All facilities must also submit with their permit application all information received as a result of any communication with a Field Office of the Fish and Wildlife Service and/or Regional Office of the National Marine Fisheries Service.

Note: If the owner or operator of an existing facility intends to comply with the BTA (best technology available) standards for entrainment using a closed-cycle recirculating system as defined at 40 CFR 125.92(c), the Director may reduce or waive some or all of the information required under paragraphs (r)(9) through (13) of this section. If you intend to comply with BTA standards for entrainment using closed cycle recirculating systems as referenced above, please contact EPD.

3. If you are a new unit at an existing facility, as defined at 40 CFR 125.92(u), you must submit or update the following information in accordance with §122.21(r)(1)(ii)(D).

Please check the box next to the required information which you are submitting with this application.

- ☐ (4) If applicable, Source water baseline biological characterization data
- ☐ (5) Cooling water system data
- ☐ (6) If applicable, Chosen Method(s) of Compliance with Impingement Mortality Standard
- ☐ (7) If applicable, Entrainment Performance Studies
- ☐ (8) Operational Status
- ☐ (H) All facilities must also submit with their permit application all information received as a result of any communication with a Field Office of the Fish and Wildlife Service and/or Regional Office of the National Marine Fisheries Service.

4. If you are a new unit at an existing facility, as defined at 40 CFR 125.92(u), not previously subject to part 125 that increases the total capacity of the existing facility to more than 2 mgd DIF, you must submit the following information in accordance with §122.21(r)(1)(ii)(E).

Please check the box next to the required information which you are submitting with this application.

- ☐ (4) If applicable, Source water baseline biological characterization data
- ☐ (5) Cooling water system data
- ☐ (6) If applicable, Chosen Method(s) of Compliance with Impingement Mortality Standard
- ☐ (7) If applicable, Entrainment Performance Studies
- ☐ (8) Operational Status
- ☐ (9) If total capacity increases to more than 125 mgd, Entrainment Characterization Study
- ☐ (10) If total capacity increases to more than 125 mgd, Comprehensive Technical Feasibility and Cost Evaluation Study
- ☐ (11) If total capacity increases to more than 125 mgd, Benefits Valuation Study
- ☐ (12) If total capacity increases to more than 125 mgd, Non-water Quality Environmental and Other Impacts Study
- ☐ (13) Peer Review
- ☐ (H) All facilities must also submit with their permit application all information received as a result of any communication with a Field Office of the Fish and Wildlife Service and/or Regional Office of the National Marine Fisheries Service.

Note: If the owner or operator of an existing facility intends to comply with the BTA (best technology available) standards for entrainment using a closed-cycle recirculating system as defined at 40 CFR 125.92(c), the Director may reduce or waive some or all of the information required under paragraphs (r)(9) through (13) of this section. If you intend to comply with BTA standards for entrainment using closed cycle recirculating systems as referenced above, please contact EPD.

SECTION VII. *BTA STANDARD FOR IMPINGEMENT MORTALITY FOR EXISTING UNITS AT EXISTING FACILITIES*

The final rule requires that existing facilities subject to this rule must comply with one of the following seven alternatives listed below identified in the national BTA standard for impingement mortality at § 125.94(c) (hereafter, impingement mortality standards).

Note: Please check the box under the applicable impingement mortality standard in which your facility currently has in operation or intends to install to comply with the referenced standard. Please also provide the appropriate documentation for the chosen alternative and attach it your application.

1. Operate a closed-cycle recirculating system as defined at § 125.92;

   ☐ Currently in operation ☐ Request a compliance schedule

2. Operate a cooling water intake structure that has a maximum through screen design intake velocity of 0.5 fps or less;

   ☐ Currently in operation ☐ Request a compliance schedule

3. Operate a cooling water intake structure that has a maximum through screen intake velocity of 0.5 fps;
   a) In the case of Option (3), which EPA considers to be a streamlined alternative, the facility must submit information to the Director that demonstrates that the maximum intake velocity as water passes through the structural components of a screen measured perpendicular to the screen mesh does not exceed 0.5 feet per second.

   ☐ Currently in operation ☐ Request a compliance schedule

4. Operate an offshore velocity cap as defined at § 125.92 that is installed before October 14, 2014;

   ☐ Currently in operation ☐ Request a compliance schedule

5. Operate a modified traveling screen that the Director determines meets the definition at § 125.92(s) and that the Director determines is the best technology available for impingement reduction;
   a) In the case of Option (5), the facility must submit a site-specific impingement technology performance optimization study that must include two years of biological sampling demonstrating that the operation of the modified traveling screens has been optimized to minimize impingement mortality. As discussed below, if the facility does not already have this technology installed and chooses this option, the Director may postpone this study till the screens are installed (see VI.G.1.d below).

   ☐ Currently in operation ☐ Request a compliance schedule

6. Operate any other combination of technologies, management practices and operational measures that the Director determines is the best technology available for impingement reduction; or

   (a) In the case of Option (6), the facility must submit a site-specific impingement study including two years of biological data collection demonstrating that the operation of the system of technologies, operational measures and best management practices has been optimized to minimize impingement mortality. If this demonstration relies in part on a credit for reductions in the rate of impingement already achieved by measures taken at the facility, an estimate of those reductions and any relevant supporting documentation must be submitted. The estimated reductions in rate of impingement must be based on a comparison of the system to a once-through cooling system with a traveling screen whose point of withdrawal from the surface water source is located at the shoreline of the source waterbody.

   ☐ Currently in operation ☐ Request a compliance schedule

7. Achieve the specified impingement mortality performance standard.

   (a) The impingement mortality performance standard in (7) requires that a facility must achieve a 12-month impingement mortality performance of all life stages of fish and shellfish of no more than 24 percent mortality, including latent mortality, for all non-fragile species that are collected or retained in a sieve with maximum opening dimension of 0.56 inches and kept for holding period of 18 to 96 hours. The Director may, however, prescribe an alternative holding period.

   The 12-month average of impingement mortality is calculated as the sum of total impingement mortality for the previous 12 months divided by the sum of total impingement for the previous 12 months. A facility must choose to demonstrate compliance with this requirement for the entire facility, or for each individual cooling water intake structure. Biological monitoring must be completed at a minimum frequency of monthly.

   ☐ Currently in operation ☐ Request a compliance schedule

SECTION VIII. BTA STANDARDS FOR IMPINGEMENT MORTALITY AND ENTRAINMENT FOR NEW UNITS AT EXISTING FACILITIES

The owner or operator of a new unit at an existing facility must achieve one of two compliance alternatives under the national BTA standards for impingement mortality and entrainment for new units at existing facilities at § 125.94(e) (hereafter, new unit standards).

☐ Option No. 1

You must reduce AIF at the new unit, at a minimum, to a level commensurate with that which can be attained by the use of a closed-cycle recirculating system as defined at § 125.92(c)(1).

☐ Option No. 2

You must demonstrate to the Director that it has installed and will operate and maintain, technological or other control measures that reduce the level of adverse environmental impact from any cooling water intake structure used to supply cooling water to the new unit to a comparable level to that which would be achieved through flow reductions commensurate with the use of a closed-cycle recirculating system. Under this alternative, the owner or operator of a facility must demonstrate entrainment mortality reductions that are equivalent to 90 percent or greater of the reduction that could be achieved through compliance with the first alternative entrainment standard for new units.

SECTION IX. ENTRAINMENT BTA

The Director must establish the Entrainment BTA requirement for your facility on a site-specific basis in accordance with § 125.98(f)(2).

If you withdraw greater than 125 mgd AIF, you must develop and submit an Entrainment Characterization Study (§ 122.21(r)(9)), as well as provide other information required in § 122.21(r)(7) and (10), (11), (12) and (13) that must include specified data pertinent to consideration of several of the factors identified in § 125.98(f).

Please include your Entrainment Characterization Study as well as the other required information referenced above with your application.

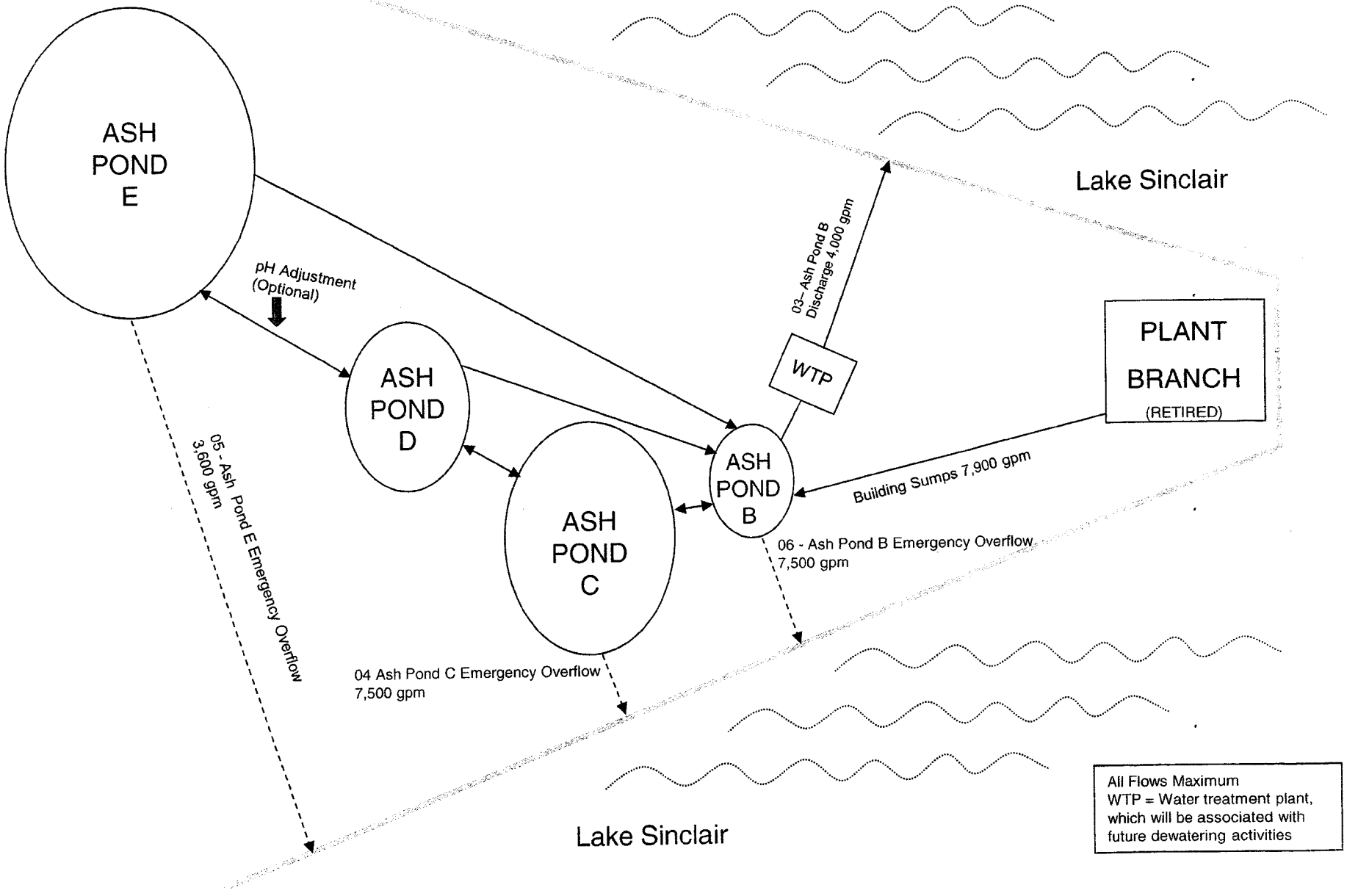
SECTION X. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

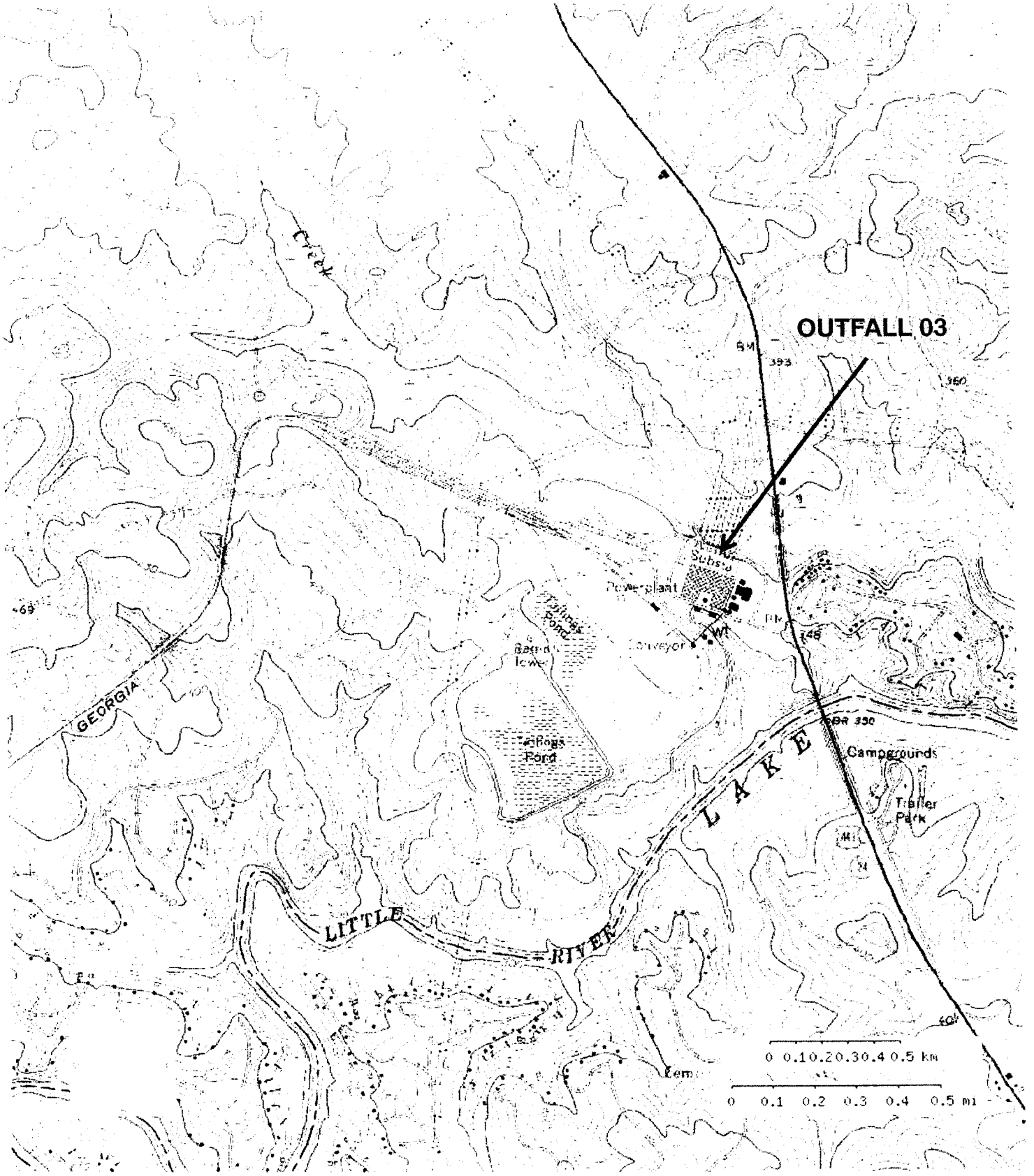
Print Name: Mark Berry, Vice President - Georgia Power Environmental Affairs	Date:
Signature of Applicant:	02/28/2017

GEORGIA POWER COMPANY
PLANT BRANCH
NPDES PERMIT NO. GA0026051

February 2017



Plant Branch
Georgia Power Company
USGS Lake Sinclair West Quadrangle
Projection: NAD83/WGS 84



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#13

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Watershed Protection Branch
2 Martin Luther King, Jr. Drive
Suite 1152, East Tower
Atlanta, Georgia 30334
404-463-1511

Memorandum

Date: March 1, 2017

To: Josh Welte

Through: Audra Dickson

From: Audra Dickson

Subject: Permit Information Request for Reasonable Potential of Stream
GA Power Plant Branch
NPDES Permit No. GA0026051
Putnam County, Oconee River Basin

This is a request for permit information for the reasonable potential of the stream for the reissuance of the above referenced facility. Ammonia was reported as 0.19 mg/L for each outfall. Fecal coliform was reported as 78 col/100 ml.

Wastewater Regulatory Program

(Duplicate this section for each outfall)

Outfall No.: 03	Lat/Long: 33° 11' 45" -83° 17' 53"
Name of Receiving Waters: Lake Sinclair	River Basin: Oconee River
Average Flow (mgd): N/A	Maximum (Design) Flow (mgd): 5.76 (4,000 gpm)
Summer Temperature (min & max): 11.1 C	Winter Temperature (min & max): 30.4 C

Watershed Planning and Monitoring Program

Please provide the following items about the receiving stream and indicate "NA" if an item does not apply.

* USE DILUTION 1:156 FOR ALL OUTFALLS

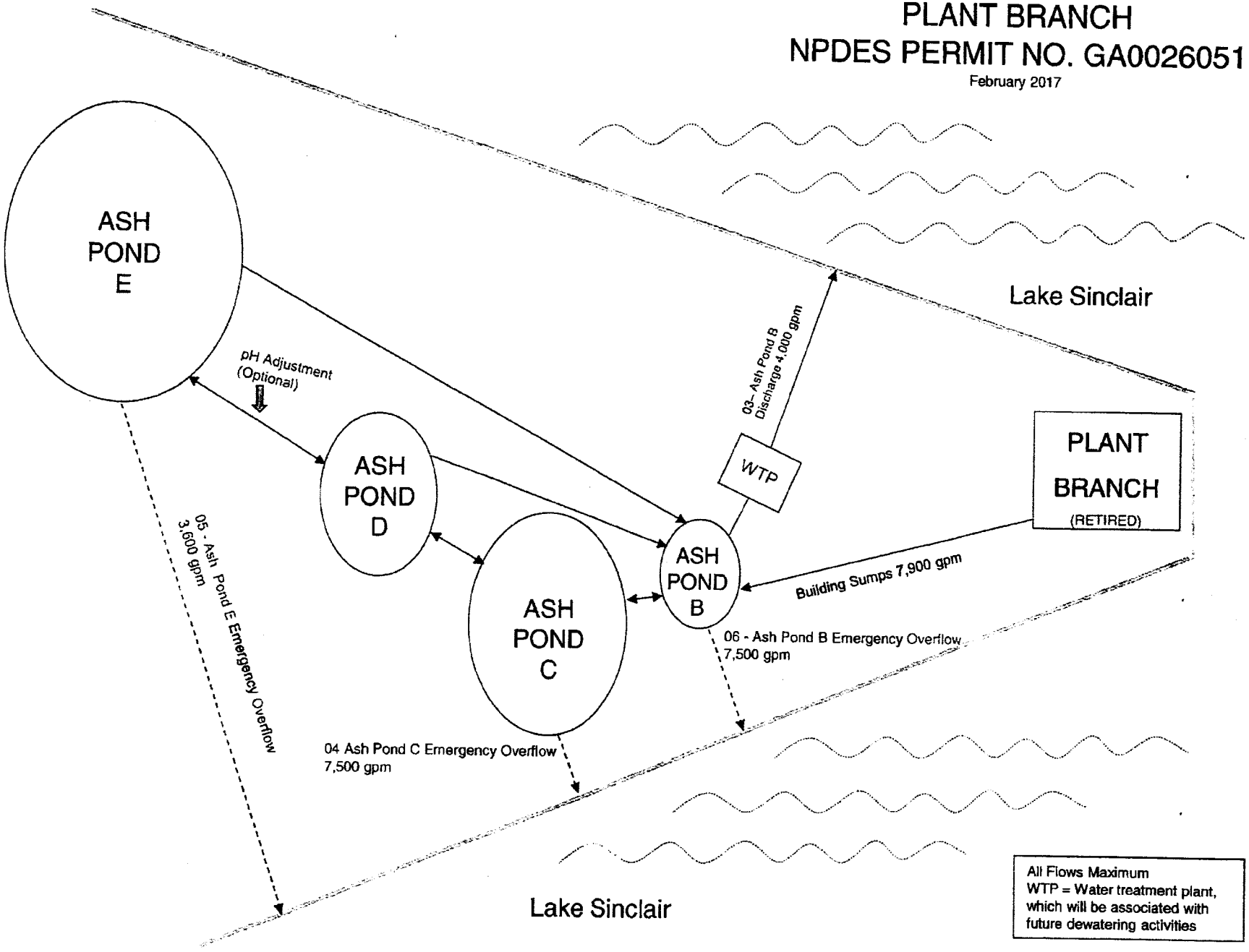
- ☒ 7Q10 NA
- ☒ 1Q10 NA
- ☒ Mean Annual Stream Flow NA
- ☒ Receiving Stream Hardness 20.4 mg/L as $CaCO_3$
- ☒ Upstream TSS 7.2 mg/L

WQ DATA FROM STATION LK-03-525 AT HWY 441, CAN BE USED FOR ALL OUTFALLS IN THIS REQUEST

Appendix C – Process Flow Line Diagram

GEORGIA POWER COMPANY
PLANT BRANCH
NPDES PERMIT NO. GA0026051

February 2017



Appendix D – Reasonable Potential Analysis (RPA) Calculation for Metals Spreadsheet

Reasonable Potential Analysis for Freshwater

Permit Name: Georgia Power Company - Plant Branch

NPDES Permit No. GA0026051

Applicable For Outfall Nos. 03, 04, 05, 06

Stream Data:

Receiving Stream Hardness	28	mg/L
Upstream TSS	7	mg/L
7Q10	N/A	ft^3/s
	#VALUE!	gal/day
1Q10	N/A	ft^3/s
	#VALUE!	gal/day

Effluent Data:

Flow	5,760,000	gal/day
TSS	5.00	mg/L

Instream TSS:	7.23	mg/L
Acute Dilution factor:	156.00	
Chronic Dilution factor:	156.00	

Water Quality Criteria

Lan annual streamflow at discharge	N/A	ft^3/s
	#VALUE!	gal/day
Dilution factor:	156.000	
IWC	#VALUE!	

$$IWC = \frac{Flow\ (^{gal}/_{day})}{Flow\ (^{gal}/_{day}) + 7Q10\ (^{gal}/_{day})}$$

Acute Water Quality Criteria (WQC_{Acute})

Metal	K_{eo}	σ	f_p	Maximum effluent C_T (µg/L)	Instream C_a (µg/L)	WQC_{Acute} (µg/L)	Action needed?
Arsenic	4.90 E+05	-0.729	0.55	30.00	0.11	340.00	no
Cadmium	4.00 E+06	-1.131	0.24	10.00	0.02	0.43	no
Chromium III	3.36 E+06	-0.930	0.21	10.00	0.01	154.98	no
Chromium VI	3.36 E+06	-0.930	0.21	10.00	0.01	16.00	no
Copper	1.04 E+06	-0.744	0.37	20.00	0.05	3.01	no
Lead	2.80 E+06	-0.800	0.19	25.00	0.03	11.04	no
Mercury	2.91 E+06	-1.136	0.31	0.01	0.00	1.40	no
Nickel	4.90 E+05	-0.572	0.47	20.00	0.06	122.01	no
Zinc	1.25 E+06	-0.704	0.31	20.00	0.04	30.47	no

Chronic Water Quality Criteria ($WQC_{Chronic}$)

Metal	K_{eo}	σ	f_p	Average effluent C_T (µg/L)	Instream C_a (µg/L)	$WQC_{Chronic}$ (µg/L)	Action needed?
Arsenic	4.90 E+05	-0.729	0.55	30.00	0.11	150.00	no
Cadmium	4.00 E+06	-1.131	0.24	10.00	0.02	0.08	no
Chromium III	3.36 E+06	-0.930	0.21	10.00	0.01	20.16	no
Chromium VI	3.36 E+06	-0.930	0.21	10.00	0.01	11.00	no
Copper	1.04 E+06	-0.744	0.37	20.00	0.05	2.30	no
Lead	2.80 E+06	-0.800	0.19	25.00	0.03	0.43	no
Mercury	2.91 E+06	-1.136	0.31	0.01	0.00	0.012	no
Nickel	4.90 E+05	-0.572	0.47	20.00	0.06	122.01	no
Zinc	1.25 E+06	-0.704	0.31	20.00	0.04	30.77	no
Selenium	NA	NA	NA	40.00	0.26	5.00	no

Total Recoverable Effluent Limit

Metal	C_s (µg/L)	Chronic C_T (µg/L) 30-Day Avg	Chronic C_T (Kg/day) 30-Day Avg	Acute C_T (µg/L) Daily Max	Acute C_T (Kg/day) Daily Max
Arsenic	0.00	N/A	N/A	N/A	N/A
Cadmium	0.0	N/A	N/A	N/A	N/A
Chromium III	0.0	N/A	N/A	N/A	N/A
Chromium VI	0.0	N/A	N/A	N/A	N/A
Copper	0.0	N/A	N/A	N/A	N/A
Lead	0.0	N/A	N/A	N/A	N/A
Mercury	0.0	N/A	N/A	N/A	N/A
Nickel	0.0	N/A	N/A	N/A	N/A
Zinc	0.0	N/A	N/A	N/A	N/A
Selenium	0.0	N/A	N/A		

(1)

(2)

NOTES:

(1) Chronic and acute total recoverable metal effluent concentration (C_T) from EPA 823-B-96-007, June 1996, page 33:

(2) Assuming background dissolved metal concentration (C_s) in the stream is 0 µg/L, equations above become:

NOTES:

*Water Quality Criteria (WQC) from State of Georgia Rules and Regulations 391-3-6-.03.

*If the calculated instream concentration is less than 50% of the instream water quality criteria, then the constituent will be considered not to be present at levels of concern in the effluent and it will not be included in the permit

*If the calculated instream concentration is 50% or more of the instream water quality criteria, than a permit limit for that constituent will be placed in the permit

End of report

Environmental Affairs
Bin 10221
241 Ralph McGill Blvd. NE
Atlanta, Georgia 30308

Georgia Power

February 28, 2017
CERTIFIED MAIL

Mr. Richard E. Dunn, Director
2 Martin Luther King Jr. Drive, SE
14th Floor, East Tower - Suite 1456
Atlanta, GA 30334-9000

RE: Plant Branch
NPDES Permit No. GA0026051
Application for Permit Renewal

Dear Mr. Dunn:

Attached is an updated NPDES permit renewal application package for Georgia Power Company's Plant Branch facility, located in Putnam County, Georgia. In addition to the required EPA Forms 1 and 2C, the application package includes a topographic map showing the facility location and outfall, testing results and permit application supplemental form. The plant was retired in April 2015, so the application has been updated to reflect the elimination of certain waste streams and outfalls.

If you need additional information or have questions regarding this matter, please contact Jean Brown at 404-506-6360 or jeabrown@southernco.com.

Sincerely,

Burns Wetherington, P.E.
Environmental Affairs Manager, Water Programs

Attachments

cc: Ms. Audra Dickson, EPD Industrial Permitting Unit, with attachments

(fill-in areas are spaced for elite type, i.e, 12 characters/inch).

Form Approved. OMB No. 2040-0086. Approval expires 5-31-92

FORM **1** GENERAL

U. S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

F	G	A	D	0	0	0	6	1	2	8	9	5	Y/A	C D
1	2											13	14	15

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data is absent (the area to the left of the label space list the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK "X" YES	NO	FORM ATTACHED	SPECIFIC QUESTIONS	MARK "X" YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to waters of the U.S.? (FORM 2A)	16	X 17	18	B. Does or will this facility *(either existing or proposed)* include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)	19	X 20	21
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X 22	23	X 24	D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)	25	X 26	27
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)	28	X 29	30	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)	31	X 32	33
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)	34	X 35	36	H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)	37	X 38	39
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)	40	X 41	42	J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)	43	X 44	45

III. NAME OF FACILITY

C 1 SKIP PLANT BRANCH (15 16 29 30 … 69)

IV. FACILITY CONTACT

A. NAME & TITLE (*last, first, & title*)	B. PHONE (*area code & no.*)
C 2 Berry, Mark, VP, Environmental Affairs (15 16 … 45)	404 (46 48) 506 (49 51) 7777 (52 55)

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

C 3 241 RALPH MCGILL BLVD., N.E. (15 16 … 45)

B. CITY OR TOWN	C. STATE	D. ZIP CODE
C 4 ATLANTA (15 16 … 40)	GA (41 42)	30308 (47 51)

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

C 5 1100 MILLEDGEVILLE ROAD (15 16 … 45)

B. COUNTY NAME

PUTNAM (46 … 70)

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE
C 6 MILLEDGEVILLE (15 16 … 40)	GA (41 42)	31061 (47 51)	N/A (52 64)

CONTINUE ON REVERSE

VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST			B. SECOND		
C 7	4911	(specify) Generation of Electricity	C 7		(specify) N/A
C. THIRD			D. FOURTH		
C 7		(specify) N/A	C 7		(specify) N/A

VIII. OPERATOR INFORMATION

A. NAME: C 8 GEORGIA POWER COMPANY

B. Is the name listed in Item VIII-A also the owner? ☒ YES ☐ NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box; if "Other", specify.)*
F = FEDERAL
S = STATE
P = PRIVATE
M = PUBLIC *(other than federal or state)*
O = OTHER *(specify)*
P (specify)

D. PHONE *(area code & no.)*: C A 404 506 6526

E. STREET OR P.O. BOX: 241 RALPH MCGILL BLVD., N.E.

F. CITY OR TOWN: C B ATLANTA

G. STATE: GA

H. ZIP CODE: 30308

IX. INDIAN LAND
Is the facility located on Indian lands? ☐ YES ☒ NO

X. EXISTING ENVIRONMENTAL PERMITS

	C	T	I	
A. NPDES *(Discharges to Surface Water)*	9	N		GA0026051
B. UIC *(Underground Injection of Fluids)*	9	U		N/A
C. RCRA *(Hazardous Wastes)*	9	R		N/A
D. PSD *(Air Emissions from Proposed Sources)*	9	P		N/A
E. OTHER *(specify)*	9			N/A (specify)
E. OTHER *(specify)*	9			N/A (specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a brief description)*

Previous generation of electricity through combustion of fossil fuels.

XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
Mark S. Berry, VP, Env. Affairs	Mark S. Berry	2/28/2017

COMMENTS FOR OFFICIAL USE ONLY

C C

EPA Form 3510-1 (8-90)

Please print or type in the unshaded areas only.

EPA I.D. (*copy from Item 1 of Form 1*)
GAD000612895

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

FORM 2C NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NO. (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
03	33	11	45	- 83	17	53	Lake Sinclair
04	33	11	10	- 83	18	17	Lake Sinclair
05	33	11	54	- 83	19	21	Lake Sinclair
06	33	11	19	- 83	18	08	Lake Sinclair

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO (*list*)	2. OPERATION (S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
03	Final Ash Pond Discharge – Storm Water	*	4,000 GPM (max)	4A	1U, 1G, 2C
04	Ash Pond "C" Emergency Overflow – Storm Water	*	7,500 GPM (max)	4A	1U
05	Ash Pond "E" Emergency Overflow – Storm Water	*	3,600 GPM (max)	4A	1U
06	Ash Pond "B" Emergency Overflow – Storm Water	*	7,500 GPM (max)	4A	1U
	* Intermittent or Emergency Flow				

OFFICIAL USE ONLY (effluent guidelines sub-categories)

 CONTINUE ON PAGE 1b

Please print or type in the unshaded areas only.

EPA I.D. (*copy from Item 1 of Form 1*)
GAD000612895

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

FORM 2C NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NO. (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO (*list*)	2. OPERATION (S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	

OFFICIAL USE ONLY (effluent guidelines sub-categories)

 CONTINUE ON PAGE 2

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items 11-A or B intermittent or seasonal?

☒ YES (complete the following table) ☐ NO (go to Section III)

1. OUTFALL NUMBER (list)	2. OPERATION(s) CONTRIBUTING FLOW (list)	3. FREQUENCY a. DAYS PER WEEK (specify average)	3. FREQUENCY b. MONTHS PER YEAR (specify average)	4. FLOW a. FLOW RATE (in mgd) 1. LONG TERM AVERAGE	4. FLOW a. FLOW RATE (in mgd) 2. MAXIMUM DAILY	4. FLOW b. TOTAL VOLUME (specify with units) 1. LONG TERM AVERAGE	4. FLOW b. TOTAL VOLUME (specify with units) 2. MAXIMUM DAILY	4. FLOW c. DURATION (in days)
04	Storm Water / Pond Closure / Plant Decommissioning	0	0	-	7,500 gpm	-	-	-
05	Storm Water / Pond Closure / Plant Decommissioning	0	0	-	3,600 gpm	-	-	-
06	Storm Water / Pond Closure / Plant Decommissioning	0	0	-	7,500 gpm	-	-	-

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ YES (complete Item III-B) ☐ NO (go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?

☐ YES (complete Item III-C) ☒ NO (go to Section IV)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	2. AFFECTED OUTFALLS (*list outfall numbers*)

IV. IMPROVEMENTS

A. Are you now required by any Federal, state or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (complete the following table) ☒ NO (go to Item IV-B)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. NO.	2. AFFECTED OUTFALLS B. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAM IS ATTACHED

 CONTINUE ON PAGE 3

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*

GAD000612895

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding - Complete one set of tables for each outfall - Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
None			

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (list all such pollutants below) ☒ NO (go to Item VI-B)

CONTINUE ON PAGE 4

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☒ YES (identify the test(s) and describe their purposes below) ☐ NO (go to Section VIII)

Whole Effluent Toxicity Testing was conducted August 21-28, 2015. The test report, dated May 8, 2015 is included in this permit application.

VIII CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contact laboratory or consulting firm?

☒ YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below) ☐ NO (go to Section IX)

A. NAME	B. ADDRESS	C. TELEPHONE *(area code & no.)*	D. POLLUTANTS ANALYZED *(list)*
Analytical Services Inc.	110 Technology Parkway Norcross, Georgia 30092	770-734-4200	All except pH and temperature.
Geochemical Testing	2005 N. Center Ave. Somerset, PA 15501	814-443-1671	Mercury
Amec Foster Wheeler	404 SW 140th Terrace Newberry, FL 32669	352-332-3318	Wet Testing

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designated to assure that qualified personal properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (type or print)	B. PHONE NO. (Area code & no.)
Mark S. Berry, Vice President, Environmental Affairs	(404) 506-7777
C. SIGNATURE	D. DATE SIGNED
	2/28/2017

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages
SEE INSTRUCTIONS

EPA I.D NUMBER *(copy from Item 1 of Form 1)*
GAD000612895

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

PLANT BRANCH

OUTFALL NO. 03

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO OF ANALYSES	3. UNITS *(specify if blank)* a. CONCEN-TRATION	b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	< 2						1	mg/l	lb/day	< 2		1
b. Chemical Oxygen Demand (COD)	< 10						1	mg/l	lb/day	< 10		1
c. Total Organic Carbon (TOC)	1.3						1	mg/l	lb/day	2.8		1
d. Total Suspended Solids (TSS)	< 5						1	mg/l	lb/day	6		1
e. Ammonia *(as N)*	0.19						1	mg/l	lb/day	0.24		1
f. Flow	VALUE 4.000		VALUE		VALUE			gpm		VALUE		
g. Temperature *(winter)*	VALUE 11.1		VALUE		VALUE		1	°C		VALUE		
h. Temperature *(summer)*	VALUE 30.4		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM 7.0	MAXIMUM 7.0	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B - Mark "X. in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data for an explanation of their presence in your discharge. Complete one table for each outfall See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO. OF ANAL-YESES	4. UNITS a. CONCEN-TRATION	b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANAL-YSES
a. Bromide (24959-67-9)			< 1.0						1	mg/l	lb/day	< 0.1		1
b. Chlorine, Total Residual			0.1						1	mg/l		0.1		1
c. Color			< 5						1	PCU		10		1
d. Fecal Coliform			78						1	col/100 ml		140		1
e. Fluoride (16984-48-8)			0.2						1	mg/l	lb/day	< 0.1		1
f. Nitrate-Nitrite *(as N)*			0.85						1	mg/l	lb/day	< 0.05		1

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	2. MARK 'X' b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
g. Nitrogen, Total Organic *(as N)*			< 0.4						1	mg/l	lb/day	<0 .4		1
h. Oil and Grease			< 5.7						1	mg/l	lb/day	< 5.6		1
I. Phosphorus (as P) Total (7723-14-0)			< 0.02						1	mg/l	lb/day	0.02		1
J. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate *(as SO_4)* (14808-79-8)			80						1	mg/l	lb/day	< 5.0		1
l. Sulfide *(as SO_3)* (14265-45-3)			< 0.2						1	mg/l	lb/day	< 0.2		1
m. Sulfite *(as SO_3)* (14265-45-3)			1.28						1	mg/l	lb/day	0.64		1
n. Surfactants			< 0.05						1	mg/l	lb/day	< 0.05		1
o. Aluminum, Total (7440-39-3)			< 0.1						1	mg/l	lb/day	0.17		1
p. Barium, Total (7440-39-3)			0.054						1	mg/l	lb/day	0.024		1
q. Boron, Total (7440-42-8)			0.402						1	mg/l	lb/day	< 0.04		1
r. Cobalt, Total (7440-48-4)			< 0.04						1	mg/l	lb/day	< 0.04		1
s. Iron, Total (7439-89-6)			0.108						1	mg/l	lb/day	0.219		1
t. Magnesium, Total (7439-95-4)			4.88						1	mg/l	lb/day	2.48		1
u. Molybdenum, Total (7439-98-7)			< 0.04						1	mg/l	lb/day	< 0.04		1
v. Manganese, Total (7439-96-5)			< 0.04						1	mg/l	lb/day	0.66		1
w. Tin, Total (7440-31-5)			< 0.04						1	mg/l	lb/day	< 0.04		1
x. Titanium, Total (7440-32-6)			< 0.1						1	mg/l	lb/day	< 0.1		1

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PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for the pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part, please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG VALUE (if available) (2) MASS	d. NO OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			< 0.05						1	mg/l	lb/day	< 0.05		1
2M. Arsenic, Total (7440-38-2)	X			< 0.03						1	mg/l	lb/day	< 0.03		1
3M. Beryllium, Total, 7440-41-7	X			< 0.01						1	mg/l	lb/day	< 0.01		1
4M. Cadmium, Total (7440-43-9)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
5M. Chromium Total (7440-47-3)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
6M. Copper, Total (7440-50-8)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
7M. Lead, Total (7439-92-1)	X			< 0.025						1	mg/l	lb/day	< 0.025		1
8M. Mercury, Total (7439-97-6)	X			< 0 00001						1	mg/l	lb/day	0.0000342		1
9M. Nickel, Total (7440-02-0)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
10M. Selenium, Total (7782-49-2)	X			< 0.04						1	mg/l	lb/day	< 0.04		1
11M. Silver, Total (7440-22-4)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
12M. Thallium, Total (7440-28-0)	X			< 0.2						1	mg/l	lb/day	< 0.2		1
13M. Zinc, Total (7440-66-6)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
14M. Cyanide, Total (57-12-5)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
15M. Phenols, Total	X			< 0.05						1	mg/l	lb/day	< 0.05		1
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1V. Acrolein (107-02-8)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
2V. Acrylonitrile (107-13-1)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
3V. Benzene (71-43-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
4V. Bis(*Chloromethyl*) Ether (542-88-1)			X							1	mg/l	lb/day			1
5V. Bromoform (75-25-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
6V. Carbon Tetrachloride(56-23-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
7V. Chlorobenzene (108-90-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
8V. Chlorodibromo-methane (124-48-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9V. Chloroethane (75-00-3)	X			< 0.005						1	mg/l	lb/day	< 0.005		1
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11V. Chloroform (67-66-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
12V. Dichlorobromo-methane (75-71-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
13V. Dichlorodifluoro-methane (75-71-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
14V. 1,1-Dichloro-ethane (75-34-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
15V. 1,2-Dichloro-ethane (107-06-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
16V. 1,1-Dichloro-ethylene (75-35-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
17V. 1,2-Dichloro-propane (78-87-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
18V. 1,3-Dichloro-propylene (542-75-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
19V. Ethylbenzene (100-41-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
20V. Methyl Bromide (74-83-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
21V. Methyl Chloride (74-87-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
23V.1,1,2,2Tetra-chloroethane (79-34-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
24V. Tetrachloroethylene (127-18-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
25V. Toluene (108-88-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
26V. 1,2-Trans-Dichloro-ethylene (156-60-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
27V. 1,1,1-Trichloroethane (71-56-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
28V. 1,1,2-Trichloroethane (79-00-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
29V. Trichloroethylene (79-01-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
30V. Trichlorofluoro-methane (75-69-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
31V. Vinyl Chloride (75-01-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
GC/MS FRACTION — ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
2A. 2,4-Dichlorophenol (120-83-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
3A. 2,4-Dimethylphenol (105-67-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
5A. 2,4-Dinitrophenol (51-28-5)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
6A. 2-Nitrophenol (88-75-5)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
7A. 4-Nitrophenol (100-02-7)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
8A. P-Chloro-M-Cresol (59-50-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9A. Pentachlorophenol (87-86-5)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
10A. Phenol (108-95-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11A. 2,4,6-Trichloro-phenol (88-06-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
2B. Acenaphtylene (208-96-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
3B. Anthracene (120-12-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
4B. Benzidine (92-87-5)	X			<0 .080						1	mg/l	lb/day	< 0.080		1
5B. Benzo *(a)* Anthracene (56-55-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
6B. Benzo *(a)* Pyrene (50-32-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
7B. 3,4-Benzo-fluoranthene (205-99-2	X			< 0.010						1	mg/l	lb/day	< 0.010		1
8B. Benzo *(ghi)* Perylene (191-24-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9B. Benzo *(k)*Fluoranthene (207-08-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
15B. Butyl Benzyl Phthalate (85-68-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
16B. 2-Chloronaphthalene (91-58-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
18B. Chrysene (218-01-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
20B. 1,2-Dichloro-benzene (95-50-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
21B. 1,3-Dichloro-benzene (541-73-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing	b. Believed	b. Believed	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG VALUE *(if available)*		d. NO OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO OF ANALYSES
	Required	Present	Absent	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
23B. 3,3-Dichlorobenzidine (91-94-1)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
24B. Diethyl Phthalate (84-66-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
25B. Dimethyl Phthalate (131-11-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
26B. Di-N-Butyl Phthalate (84-74-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
27B. 2,4-Dinitrotoluene (121-14-2)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
28B. 2,6-Dinitrotoluene (606-20-2)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
29B. Di-N-OctylPhthalate (117-84-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
30B. 1,2-Diphenyl-hydrazine *(as Azobenzene)* (122-66-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
31B. Fluoranthene (206-44-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
32B. Fluorene (86-73-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
33B. Hexachlorobenzene (118-74-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
34B. Hexachlorobutadiene (87-68-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
35B. Hexachlorocyclo-pentadiene (77-47-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
36B. Hexachloroethane (67-72-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
38B. Isophorone (78-59-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
39B. Naphthalene (91-20-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
40B. Nitrobenzene (98-95-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
41B. N-Nitrosodimethylamine (62-75-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6	X			< 0.010						1	mg/l	lb/day	< 0.010		1
44B. Phenanthrene (85-01-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
45B. Pyrene (129-00-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
46B. 1,2,4-Trichlorobenzene (120-82-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
1P. Aldrin (309-00-2)			X								mg/l	lb/day			
2P. α-BHC (319-84-6)			X								mg/l	lb/day			
3P. β-BHC (319-85-7)			X								mg/l	lb/day			
4P. γ-BHC (58-89-9)			X								mg/l	lb/day			
5P. δ-BHC (319-86-8)			X								mg/l	lb/day			
6P. Chlordane (57-74-9)			X								mg/l	lb/day			
7P. 4,4'-DDT (50-29-3)			X								mg/l	lb/day			
8P. 4,4'-DDE (72-55-9)			X								mg/l	lb/day			
9P. 4,4'-DDD (72-54-8)			X								mg/l	lb/day			
10P. Dieldrin (60-57-1)			X								mg/l	lb/day			
11P. α-Endosulfan (115-29-7)			X								mg/l	lb/day			
12P. β-Endosulfan (115-29-7)			X								mg/l	lb/day			
13P. Endosulfan Sulfate (1031-07-8)			X								mg/l	lb/day			
14P. Endrin (72-20-8)			X								mg/l	lb/day			
15P. Endrin Aldehyde (7421-93-4)			X								mg/l	lb/day			
16P. Heptachlor (76-44-8)			X								mg/l	lb/day			

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Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			X								mg/l	lb/day			
18P. PCB-1242 (53469-21-9)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
19P. PCB-1254 (11097-69-1)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
20P. PCB-1221 (11104-28-2)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
21P. PCB-1232 (11141-16-5)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
22P. PCB-1248 (12672-29-6)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
23P. PCB-1260 (11096-82-5)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
24P. PCB-1016 (12674-11-2)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
25P. Toxaphene (8001-35-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages.
SEE INSTRUCTIONS

EPA I D NUMBER *(copy from Item 1 of Form 1)*
GAD000612895

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V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

PLANT BRANCH

OUTFALL NO. 04

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG VALUE *(if available)* (2) MASS	d. NO OF ANALYSES	3. UNITS *(specify if blank)* a. CONCEN-TRATION	3. UNITS b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	< 2						1	mg/l	lb/day	< 2		1
b. Chemical Oxygen Demand (COD)	< 10						1	mg/l	lb/day	< 10		1
c. Total Organic Carbon (TOC)	1.3						1	mg/l	lb/day	2.8		1
d. Total Suspended Solids (TSS)	< 5						1	mg/l	lb/day	6		1
e. Ammonia *(as N)*	0.19						1	mg/l	lb/day	0.24		1
f. Flow	VALUE 7.500		VALUE		VALUE			gpm		VALUE		
g. Temperature *(winter)*	VALUE 11.1		VALUE		VALUE		1	°C		VALUE		
h. Temperature *(summer)*	VALUE 30.4		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM 7.0	MAXIMUM 7.0	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B - Mark "X: in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant For other pollutants for which you mark column 2a, you must provide quantitative data for an explanation of their presence in your discharge. Complete one table for each outfall See the instructions for additional details and requirements

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	2. MARK 'X' b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG VALUE *(if available)* (2) MASS	d. NO OF ANAL-YESES	4. UNITS a. CONCEN-TRATION	4. UNITS b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO OF ANAL-YSES
a. Bromide (24959-67-9)			< 1.0						1	mg/l	lb/day	< 0.1		1
b. Chlorine, Total Residual			0.1						1	mg/l		0.1		1
c. Color			< 5						1	PCU		10		1
d. Fecal Coliform			78						1	col/100 ml		140		1
e. Fluoride (16984-48-8)			0.2						1	mg/l	lb/day	< 0.1		1
f. Nitrate-Nitrite *(as N)*			0.85						1	mg/l	lb/day	< 0.05		1

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
g. Nitrogen, Total Organic *(as N)*			< 0.4						1	mg/l	lb/day	<0 .4		1
h. Oil and Grease			< 5.7						1	mg/l	lb/day	< 5.6		1
I. Phosphorus (as P) Total (7723-14-0)			< 0.02						1	mg/l	lb/day	0.02		1
J. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate *(as SO_4)* (14808-79-8)			80						1	mg/l	lb/day	< 5.0		1
l. Sulfide *(as SO_3)* (14265-45-3)			< 0.2						1	mg/l	lb/day	< 0.2		1
m. Sulfite *(as SO_3)* (14265-45-3)			1.28						1	mg/l	lb/day	0.64		1
n. Surfactants			< 0.05						1	mg/l	lb/day	< 0.05		1
o. Aluminum, Total (7440-39-3)			< 0.1						1	mg/l	lb/day	0.17		1
p. Barium, Total (7440-39-3)			0.054						1	mg/l	lb/day	0.024		1
q. Boron, Total (7440-42-8)			0.402						1	mg/l	lb/day	< 0.04		1
r. Cobalt, Total (7440-48-4)			< 0.04						1	mg/l	lb/day	< 0.04		1
s. Iron, Total (7439-89-6)			0.108						1	mg/l	lb/day	0.219		1
t. Magnesium, Total (7439-95-4)			4.88						1	mg/l	lb/day	2.48		1
u. Molybdenum, Total (7439-98-7)			< 0.04						1	mg/l	lb/day	< 0.04		1
v. Manganese, Total (7439-96-5)			< 0.04						1	mg/l	lb/day	0.66		1
w. Tin, Total (7440-31-5)			< 0.04						1	mg/l	lb/day	< 0.04		1
x. Titanium, Total (7440-32-6)			< 0.1						1	mg/l	lb/day	< 0.1		1

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CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for the pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part, please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			< 0.05						1	mg/l	lb/day	< 0.05		1
2M. Arsenic, Total (7440-38-2)	X			< 0.03						1	mg/l	lb/day	< 0.03		1
3M. Beryllium, Total, 7440-41-7	X			< 0.01						1	mg/l	lb/day	< 0.01		1
4M. Cadmium, Total (7440-43-9)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
5M. Chromium Total (7440-47-3)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
6M. Copper, Total (7440-50-8)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
7M. Lead, Total (7439-92-1)	X			< 0.025						1	mg/l	lb/day	< 0.025		1
8M. Mercury, Total (7439-97-6)	X			< 0.00001						1	mg/l	lb/day	0.0000342		1
9M. Nickel, Total (7440-02-0)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
10M. Selenium, Total (7782-49-2)	X			< 0.04						1	mg/l	lb/day	< 0.04		1
11M. Silver, Total (7440-22-4)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
12M. Thallium, Total (7440-28-0)	X			< 0.2						1	mg/l	lb/day	< 0.2		1
13M. Zinc, Total (7440-66-6)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
14M. Cyanide, Total (57-12-5)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
15M. Phenols, Total	X			< 0.05						1	mg/l	lb/day	< 0.05		1
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

CONTINUE ON REVERSE

GA0026051 – GPC PLANT BRANCH 2017

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1V. Acrolein (107-02-8)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
2V. Acrylonitrile (107-13-1)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
3V. Benzene (71-43-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
4V. Bis(*Chloromethyl*) Ether (542-88-1)			X							1	mg/l	lb/day			1
5V. Bromoform (75-25-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
6V. Carbon Tetrachloride(56-23-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
7V. Chlorobenzene (108-90-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
8V. Chlorodibromomethane (124-48-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9V. Chloroethane (75-00-3)	X			< 0.005						1	mg/l	lb/day	< 0.005		1
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11V. Chloroform (67-66-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
12V. Dichlorobromomethane (75-71-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
13V. Dichlorodifluoromethane (75-71-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
14V. 1,1-Dichloroethane (75-34-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
15V. 1,2-Dichloroethane (107-06-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
16V. 1,1-Dichloroethylene (75-35-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
17V. 1,2-Dichloropropane (78-87-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
18V. 1,3-Dichloropropylene (542-75-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
19V. Ethylbenzene (100-41-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
20V. Methyl Bromide (74-83-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
21V. Methyl Chloride (74-87-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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EPA I.D NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO OF ANALYSES
GC/MS FRACTION — VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
23V. 1,1,2,2Tetra-chloroethane (79-34-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
24V. Tetrachloroethylene (127-18-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
25V. Toluene (108-88-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
26V. 1,2-Trans-Dichloro-ethylene (156-60-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
27V. 1,1,1-Trichloroethane (71-56-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
28V. 1,1,2-Trichloroethane (79-00-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
29V. Trichloroethylene (79-01-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
30V. Trichlorofluoro-methane (75-69-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
31V. Vinyl Chloride (75-01-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
GC/MS FRACTION — ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
2A. 2,4-Dichlorophenol (120-83-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
3A. 2,4-Dimethylphenol (105-67-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
5A. 2,4-Dinitrophenol (51-28-5)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
6A. 2-Nitrophenol (88-75-5)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
7A. 4-Nitrophenol (100-02-7)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
8A. P-Chloro-M-Cresol (59-50-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9A. Pentachlorophenol (87-86-5)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
10A. Phenol (108-95-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11A. 2,4,6-Trichloro-phenol (88-06-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
2B. Acenaphtylene (208-96-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
3B. Anthracene (120-12-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
4B. Benzidine (92-87-5)	X			<0 .080						1	mg/l	lb/day	< 0.080		1
5B. Benzo *(a)* Anthracene (56-55-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
6B. Benzo *(a)* Pyrene (50-32-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
7B. 3,4-Benzo-fluoranthene (205-99-2	X			< 0.010						1	mg/l	lb/day	< 0.010		1
8B. Benzo *(ghi)* Perylene (191-24-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9B. Benzo *(k)*Fluoranthene (207-08-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
15B. Butyl Benzyl Phthalate (85-68-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
16B. 2-Chloronaphthalene (91-58-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
18B. Chrysene (218-01-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
20B. 1,2-Dichloro-benzene (95-50-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
21B. 1,3-Dichloro-benzene (541-73-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

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EPA I D NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
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Approval expires 7-31-88

1 POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG VALUE *(if available)*		d. NO OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
23B. 3,3-Dichlorobenzidine (91-94-1)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
24B. Diethyl Phthalate (84-66-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
25B. Dimethyl Phthalate (131-11-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
26B. Di-N-Butyl Phthalate (84-74-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
27B. 2,4-Dinitrotoluene (121-14-2)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
28B. 2,6-Dinitrotoluene (606-20-2)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
29B. Di-N-OctylPhthalate (117-84-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
30B. 1,2-Diphenyl-hydrazine *(as Azobenzene)* (122-66-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
31B. Fluoranthene (206-44-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
32B. Fluorene (86-73-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
33B. Hexachlorobenzene (118-74-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
34B. Hexachlorobutadiene (87-68-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
35B. Hexachlorocyclo-pentadiene (77-47-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
36B. Hexachloroethane (67-72-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
38B. Isophorone (78-59-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
39B. Naphthalene (91-20-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
40B. Nitrobenzene (98-95-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
41B. N-Nitrosodimethylamine (62-75-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

CONTINUE ON REVERSE

GA0026051 – GPC PLANT BRANCH 2017

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6	X			< 0.010						1	mg/l	lb/day	< 0.010		1
44B. Phenanthrene (85-01-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
45B. Pyrene (129-00-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
46B. 1,2,4-Trichlorobenzene (120-82-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
1P. Aldrin (309-00-2)			X								mg/l	lb/day			
2P. α-BHC (319-84-6)			X								mg/l	lb/day			
3P. β-BHC (319-85-7)			X								mg/l	lb/day			
4P. γ-BHC (58-89-9)			X								mg/l	lb/day			
5P. δ-BHC (319-86-8)			X								mg/l	lb/day			
6P. Chlordane (57-74-9)			X								mg/l	lb/day			
7P. 4,4'-DDT (50-29-3)			X								mg/l	lb/day			
8P. 4,4'-DDE (72-55-9)			X								mg/l	lb/day			
9P. 4,4'-DDD (72-54-8)			X								mg/l	lb/day			
10P. Dieldrin (60-57-1)			X								mg/l	lb/day			
11P. α-Endosulfan (115-29-7)			X								mg/l	lb/day			
12P. β-Endosulfan (115-29-7)			X								mg/l	lb/day			
13P. Endosulfan Sulfate (1031-07-8)			X								mg/l	lb/day			
14P. Endrin (72-20-8)			X								mg/l	lb/day			
15P. Endrin Aldehyde (7421-93-4)			X								mg/l	lb/day			
16P. Heptachlor (76-44-8)			X								mg/l	lb/day			

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CONTINUED FROM PAGE V-8

EPA I D NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	04

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Test-ing Required	b. Bel-ieved Present	b. Bel-ieved Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANAL-YSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL-YSES
				(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS				(1) CONCEN-TRATION	(2) MASS	
GC/MS FRACTION — PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			X								mg/l	lb/day			
18P. PCB-1242 (53469-21-9)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
19P. PCB-1254 (11097-69-1)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
20P. PCB-1221 (11104-28-2)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
21P. PCB-1232 (11141-16-5)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
22P. PCB-1248 (12672-29-6)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
23P. PCB-1260 (11096-82-5)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
24P. PCB-1016 (12674-11-2)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
25P. Toxaphene (8001-35-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages
SEE INSTRUCTIONS

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
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V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

PLANT BRANCH

OUTFALL NO. 05

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCEN-TRATION	3. UNITS b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	< 2						1	mg/l	lb/day	< 2		1
b. Chemical Oxygen Demand (COD)	< 10						1	mg/l	lb/day	< 10		1
c. Total Organic Carbon (TOC)	1.3						1	mg/l	lb/day	2.8		1
d. Total Suspended Solids (TSS)	< 5						1	mg/l	lb/day	6		1
e. Ammonia *(as N)*	0.19						1	mg/l	lb/day	0.24		1
f. Flow	VALUE 3.600		VALUE		VALUE			gpm		VALUE		
g. Temperature *(winter)*	VALUE 11.1		VALUE		VALUE		1	°C		VALUE		
h. Temperature *(summer)*	VALUE 30.4		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM 7.0	MAXIMUM 7.0	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data for an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	2. MARK 'X' b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG VALUE *(if available)* (2) MASS	d. NO. OF ANAL-YSES	4. UNITS a. CONCEN-TRATION	4. UNITS b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANAL-YSES
a. Bromide (24959-67-9)			< 1.0						1	mg/l	lb/day	< 0.1		1
b. Chlorine, Total Residual			0.1						1	mg/l		0.1		1
c. Color			< 5						1	PCU		10		1
d. Fecal Coliform			78						1	col/100 ml		140		1
e. Fluoride (16984-48-8)			0.2						1	mg/l	lb/day	< 0.1		1
f. Nitrate-Nitrite *(as N)*			0.85						1	mg/l	lb/day	< 0.05		1

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	2. MARK 'X' b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG VALUE (if available) (2) MASS	d. NO OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
g. Nitrogen, Total Organic *(as N)*			< 0.4						1	mg/l	lb/day	<0 .4		1
h. Oil and Grease			< 5.7						1	mg/l	lb/day	< 5.6		1
I. Phosphorus (as P) Total (7723-14-0)			< 0.02						1	mg/l	lb/day	0.02		1
J. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate *(as SO_4)* (14808-79-8)			80						1	mg/l	lb/day	< 5.0		1
l. Sulfide *(as SO_3)* (14265-45-3)			< 0.2						1	mg/l	lb/day	< 0.2		1
m. Sulfite *(as SO_3)* (14265-45-3)			1.28						1	mg/l	lb/day	0.64		1
n. Surfactants			< 0.05						1	mg/l	lb/day	< 0.05		1
o. Aluminum, Total (7440-39-3)			< 0.1						1	mg/l	lb/day	0.17		1
p. Barium, Total (7440-39-3)			0.054						1	mg/l	lb/day	0.024		1
q. Boron, Total (7440-42-8)			0.402						1	mg/l	lb/day	< 0.04		1
r. Cobalt, Total (7440-48-4)			< 0.04						1	mg/l	lb/day	< 0.04		1
s. Iron, Total (7439-89-6)			0.108						1	mg/l	lb/day	0.219		1
t. Magnesium, Total (7439-95-4)			4.88						1	mg/l	lb/day	2.48		1
u. Molybdenum, Total (7439-98-7)			< 0.04						1	mg/l	lb/day	< 0.04		1
v. Manganese, Total (7439-96-5)			< 0.04						1	mg/l	lb/day	0.66		1
w. Tin, Total (7440-31-5)			< 0.04						1	mg/l	lb/day	< 0.04		1
x. Titanium, Total (7440-32-6)			< 0.1						1	mg/l	lb/day	< 0.1		1

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CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	05

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for Mark "X" in column 2-a for all such GC/MS fractions that apply to your industryand for ALL toxic metals, cyanides, and total phenols If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present Mark "X" in column 2-c for each pollutant you believe is absent If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant If you mark column 2b for any pollutant, you must provide the results of at least one analysis for the pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater If you mark column 2b for acrolein, acrylonitrile, 2 4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully Complete one table (all 7 pages) for each outfall See instructions for additional details and requirements

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3 EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b Believed Present	b Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG VALUE *(if available)*		d NO. OF ANALYSES	a. CONCENTRATION	b MASS	a. LONG TERM AVERAGE VALUE		b NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			< 0.05						1	mg/l	lb/day	< 0.05		1
2M. Arsenic, Total (7440-38-2)	X			< 0.03						1	mg/l	lb/day	< 0.03		1
3M. Beryllium, Total, 7440-41-7	X			< 0.01						1	mg/l	lb/day	< 0.01		1
4M. Cadmium, Total (7440-43-9)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
5M. Chromium Total (7440-47-3)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
6M. Copper, Total (7440-50-8)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
7M. Lead, Total (7439-92-1)	X			< 0.025						1	mg/l	lb/day	< 0.025		1
8M. Mercury, Total (7439-97-6)	X			< 0.00001						1	mg/l	lb/day	0.0000342		1
9M. Nickel, Total (7440-02-0)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
10M. Selenium, Total (7782-49-2)	X			< 0.04						1	mg/l	lb/day	< 0.04		1
11M. Silver, Total (7440-22-4)	X			< 0.01						1	mg/l	lb/day	< 0.01		1
12M. Thallium, Total (7440-28-0)	X			< 0.2						1	mg/l	lb/day	< 0.2		1
13M. Zinc, Total (7440-66-6)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
14M. Cyanide, Total (57-12-5)	X			< 0.02						1	mg/l	lb/day	< 0.02		1
15M. Phenols, Total	X			< 0.05						1	mg/l	lb/day	< 0.05		1
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

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CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1V. Acrolein (107-02-8)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
2V. Acrylonitrile (107-13-1)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
3V. Benzene (71-43-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
4V. Bis(*Chloromethyl*) Ether (542-88-1)			X							1	mg/l	lb/day			1
5V. Bromoform (75-25-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
6V. Carbon Tetrachloride(56-23-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
7V. Chlorobenzene (108-90-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
8V. Chlorodibromomethane (124-48-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9V. Chloroethane (75-00-3)	X			< 0.005						1	mg/l	lb/day	< 0.005		1
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11V. Chloroform (67-66-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
12V. Dichlorobromomethane (75-71-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
13V. Dichlorodifluoromethane (75-71-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
14V. 1,1-Dichloroethane (75-34-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
15V. 1,2-Dichloroethane (107-06-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
16V. 1,1-Dichloroethylene (75-35-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
17V. 1,2-Dichloropropane (78-87-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
18V. 1,3-Dichloropropylene (542-75-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
19V. Ethylbenzene (100-41-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
20V. Methyl Bromide (74-83-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
21V. Methyl Chloride (74-87-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

CONTINUE ON PAGE V-5

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EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
GAD000612895	05

Form Approved.
OMB No. 2040-0086
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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Test-ing Required	b. Bel-ieved Present	b. Bel-ieved Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG VALUE (if available) (1) CONCEN-TRATION	(2) MASS	d. NO OF ANAL-YSES	4. UNITS a. CONCEN-TRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO OF ANAL-YSES
GC/MS FRACTION — VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
23V. 1,1,2,2Tetra-chloroethane (79-34-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
24V. Tetrachloroethylene (127-18-4)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
25V. Toluene (108-88-3)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
26V. 1,2-Trans-Dichloro-ethylene (156-60-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
27V. 1,1,1-Trichloroethane (71-56-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
28V. 1,1,2-Trichloroethane (79-00-5)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
29V. Trichloroethylene (79-01-6)	X			< 0.002						1	mg/l	lb/day	< 0.002		1
30V. Trichlorofluoro-methane (75-69-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
31V. Vinyl Chloride (75-01-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
GC/MS FRACTION — ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
2A. 2,4-Dichlorophenol (120-83-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
3A. 2,4-Dimethylphenol (105-67-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
5A. 2,4-Dinitrophenol (51-28-5)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
6A. 2-Nitrophenol (88-75-5)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
7A. 4-Nitrophenol (100-02-7)	X			< 0.050						1	mg/l	lb/day	< 0.050		1
8A. P-Chloro-M-Cresol (59-50-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9A. Pentachlorophenol (87-86-5)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
10A. Phenol (108-95-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11A. 2,4,6-Trichloro-phenol (88-06-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

CONTINUE ON REVERSE

GA0026051 – GPC PLANT BRANCH 2017

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X" a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
2B. Acenaphtylene (208-96-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
3B. Anthracene (120-12-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
4B. Benzidine (92-87-5)	X			<0 .080						1	mg/l	lb/day	< 0.080		1
5B. Benzo *(a)* Anthracene (56-55-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
6B. Benzo *(a)* Pyrene (50-32-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
7B. 3,4-Benzo-fluoranthene (205-99-2	X			< 0.010						1	mg/l	lb/day	< 0.010		1
8B. Benzo *(ghi)* Perylene (191-24-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
9B. Benzo *(k)*Fluoranthene (207-08-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
15B. Butyl Benzyl Phthalate (85-68-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
16B. 2-Chloronaphthalene (91-58-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
18B. Chrysene (218-01-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
20B. 1,2-Dichloro-benzene (95-50-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
21B. 1,3-Dichloro-benzene (541-73-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

CONTINUE ON PAGE V-7

CONTINUED FROM PAGE V-6

EPA I.D NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	05

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG VALUE *(if available)* (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
23B. 3,3-Dichlorobenzidine (91-94-1)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
24B. Diethyl Phthalate (84-66-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
25B. Dimethyl Phthalate (131-11-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
26B. Di-N-Butyl Phthalate (84-74-2)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
27B. 2,4-Dinitrotoluene (121-14-2)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
28B. 2,6-Dinitrotoluene (606-20-2)	X			< 0.020						1	mg/l	lb/day	< 0.020		1
29B. Di-N-OctylPhthalate (117-84-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
30B. 1,2-Diphenyl-hydrazine *(as Azobenzene)* (122-66-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
31B. Fluoranthene (206-44-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
32B. Fluorene (86-73-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
33B. Hexachlorobenzene (118-74-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
34B. Hexachlorobutadiene (87-68-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
35B. Hexachlorocyclo-pentadiene (77-47-4)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
36B. Hexachloroethane (67-72-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
38B. Isophorone (78-59-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
39B. Naphthalene (91-20-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
40B. Nitrobenzene (98-95-3)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
41B. N-Nitrosodimethylamine (62-75-9)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X			< 0.010						1	mg/l	lb/day	< 0.010		1

CONTINUE ON REVERSE

GA0026051 – GPC PLANT BRANCH 2017

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6	X			< 0.010						1	mg/l	lb/day	< 0.010		1
44B. Phenanthrene (85-01-8)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
45B. Pyrene (129-00-0)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
46B. 1,2,4-Trichlorobenzene (120-82-1)	X			< 0.010						1	mg/l	lb/day	< 0.010		1
1P. Aldrin (309-00-2)			X								mg/l	lb/day			
2P. α-BHC (319-84-6)			X								mg/l	lb/day			
3P. β-BHC (319-85-7)			X								mg/l	lb/day			
4P. γ-BHC (58-89-9)			X								mg/l	lb/day			
5P. δ-BHC (319-86-8)			X								mg/l	lb/day			
6P. Chlordane (57-74-9)			X								mg/l	lb/day			
7P. 4,4'-DDT (50-29-3)			X								mg/l	lb/day			
8P. 4,4'-DDE (72-55-9)			X								mg/l	lb/day			
9P. 4,4'-DDD (72-54-8)			X								mg/l	lb/day			
10P. Dieldrin (60-57-1)			X								mg/l	lb/day			
11P. α-Endosulfan (115-29-7)			X								mg/l	lb/day			
12P. β-Endosulfan (115-29-7)			X								mg/l	lb/day			
13P. Endosulfan Sulfate (1031-07-8)			X								mg/l	lb/day			
14P. Endrin (72-20-8)			X								mg/l	lb/day			
15P. Endrin Aldehyde (7421-93-4)			X								mg/l	lb/day			
16P. Heptachlor (76-44-8)			X								mg/l	lb/day			

CONTINUE ON PAGE V-9

GA0026051 – GPC PLANT BRANCH 2017

CONTINUED FROM PAGE V-8

EPA I D NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612895	05

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			X								mg/l	lb/day			
18P. PCB-1242 (53469-21-9)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
19P. PCB-1254 (11097-69-1)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
20P. PCB-1221 (11104-28-2)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
21P. PCB-1232 (11141-16-5)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
22P. PCB-1248 (12672-29-6)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
23P. PCB-1260 (11096-82-5)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
24P. PCB-1016 (12674-11-2)	X			< 0.001						1	mg/l	lb/day	< 0.001		1
25P. Toxaphene (8001-35-2)	X			< 0.002						1	mg/l	lb/day	< 0.002		1

GA0026051 – GPC PLANT BRANCH 2017

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages.
SEE INSTRUCTIONS

EPA I D NUMBER *(copy from Item I of Form I)*
GAD000612895

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

PLANT BRANCH

OUTFALL NO. 06

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCEN-TRATION	3. UNITS b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	< 2						1	mg/l	lb/day	< 2		1
b. Chemical Oxygen Demand (COD)	< 10						1	mg/l	lb/day	< 10		1
c. Total Organic Carbon (TOC)	1.3						1	mg/l	lb/day	2.8		1
d. Total Suspended Solids (TSS)	< 5						1	mg/l	lb/day	6		1
e. Ammonia *(as N)*	0.19						1	mg/l	lb/day	0.24		1
f. Flow	VALUE 7.500		VALUE		VALUE			gpm		VALUE		
g. Temperature *(winter)*	VALUE 11.1		VALUE		VALUE		1	°C		VALUE		
h. Temperature *(summer)*	VALUE 30.4		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM 7.0	MAXIMUM 7.0	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B - Mark "X: in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant For other pollutants for which you mark column 2a, you must provide quantitative data for an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO (if available)	2. MARK 'X' a. Believed Present	2. MARK 'X' b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG VALUE *(if available)* (2) MASS	d. NO OF ANAL-YESES	4. UNITS a. CONCEN-TRATION	4. UNITS b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANAL-YSES
a. Bromide (24959-67-9)			< 1.0						1	mg/l	lb/day	< 0.1		1
b. Chlorine, Total Residual			0.1						1	mg/l		0.1		1
c. Color			< 5						1	PCU		10		1
d. Fecal Coliform			78						1	col/100 ml		140		1
e. Fluoride (16984-48-8)			0.2						1	mg/l	lb/day	< 0.1		1
f. Nitrate-Nitrite *(as N)*			0.85						1	mg/l	lb/day	< 0.05		1

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT							4 UNITS		5. INTAKE *(optional)*		
	a Believed Present	b Believed Absent	a MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d NO OF ANALYSES	a CONCENTRATION	b MASS	a. LONG TERM AVERAGE VALUE		b. NO OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic *(as N)*			< 0.4						1	mg/l	lb/day	<0 .4		1
h. Oil and Grease			< 5.7						1	mg/l	lb/day	< 5.6		1
I. Phosphorus (as P) Total (7723-14-0)			< 0.02						1	mg/l	lb/day	0.02		1
J. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate *(as SO_4)* (14808-79-8)			80						1	mg/l	lb/day	< 5.0		1
l. Sulfide *(as SO_3)* (14265-45-3)			< 0.2						1	mg/l	lb/day	< 0.2		1
m. Sulfite *(as SO_3)* (14265-45-3)			1.28						1	mg/l	lb/day	0.64		1
n. Surfactants			< 0.05						1	mg/l	lb/day	< 0.05		1
o. Aluminum, Total (7440-39-3)			< 0.1						1	mg/l	lb/day	0.17		1
p. Barium, Total (7440-39-3)			0.054						1	mg/l	lb/day	0.024		1
q. Boron, Total (7440-42-8)			0.402						1	mg/l	lb/day	< 0.04		1
r. Cobalt, Total (7440-48-4)			< 0.04						1	mg/l	lb/day	< 0.04		1
s. Iron, Total (7439-89-6)			0.108						1	mg/l	lb/day	0.219		1
t. Magnesium, Total (7439-95-4)			4.88						1	mg/l	lb/day	2.48		1
u. Molybdenum, Total (7439-98-7)			< 0.04						1	mg/l	lb/day	< 0.04		1
v. Manganese, Total (7439-96-5)			< 0.04						1	mg/l	lb/day	0.66		1
w. Tin, Total (7440-31-5)			< 0.04						1	mg/l	lb/day	< 0.04		1
x. Titanium, Total (7440-32-6)			< 0.1						1	mg/l	lb/day	< 0.1		1

 CONTINUE ON PAGE V-3

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#14

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Watershed Protection Branch
2 Martin Luther King, Jr. Drive
Suite 1152, East Tower
Atlanta, Georgia 30334
404-463-1511

April 20, 2017

Ms. Denisse Diaz, Branch Chief
NPDES Permitting and Enforcement Branch
Water Protection Division
U.S. EPA Region IV
The Sam Nunn Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303

RE: Draft Permit
Georgia Power Company – Plant Branch
NPDES Permit No. GA0026051
Milledgeville, Putnam County
SIC 4911

Dear Ms. Diaz:

In accordance with the Memorandum of Agreement, we are transmitting one copy of the above-referenced revised draft NPDES permit, as well as additional supporting documentation.

Sincerely,

Audra Dickson, Manager
Industrial Permitting Unit

Enclosure(s): Permit Application, Permit Fact Sheet with Appendices

cc: email permit package to EPA Region 4 mailbox: R4NPDESPermits@epa.gov
davis.molly@epa.gov

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

PUBLIC NOTICE

Notice of Application for National Pollutant Discharge Elimination System Permit to Discharge Treated Wastewater Into Waters of the State of Georgia.

The Georgia Environmental Protection Division has received a new NPDES permit application for the reissuance of an existing NPDES permit. Having reviewed such application, the Environmental Protection Division proposes to issue for a maximum term of five years the following permit subject to specific pollutant limitations and special conditions:

> **Georgia Power Company – Plant Branch, 241 Ralph McGill Blvd, NE, Atlanta, Georgia 30308, NPDES Permit No. GA0026051, for its steam electric power generating facility located at 1100 Milledgeville Road in Milledgeville, Georgia, Putnam County. A maximum of 32.54 MGD of steam electric power generating wastewater (coal ash pond B discharge and emergency overflow commingled with stormwater as well as ash pond C and E emergency overflow commingled with stormwater), is discharged to Lake Sinclair (external outfall nos. 03, 04, 05, and 06) in the Oconee River Basin.**

Persons wishing to comment upon or object to the proposed determinations are invited to submit same in writing to the EPD address below, or via e-mail at EPDcomments@dnr.ga.gov, no later than thirty (30) days after this notification. If you choose to e-mail your comments, please be sure to include the words "NPDES permit reissuance – Georgia Power Company – Plant Branch (Putnam County)" in the subject line to ensure that your comments will be forwarded to the correct staff. All comments received prior to or on that date will be considered in the formulation of final determinations regarding the application. A public hearing may be held where the EPD Director finds a significant degree of public interest in a proposed permit or group of permits. Additional information regarding public hearing procedures is available by writing the Environmental Protection Division.

A fact sheet or copy of the draft permit is available by writing the Environmental Protection Division. A copying charge of 10 cents per page will be assessed. The permit application, draft permit, comments received, and other information are available for review at 2 MLK, Jr. Dr., Suite 1152E, Atlanta, GA 30334, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday. For additional information contact: Audra Dickson, Wastewater Regulatory Program, phone (404) 463-4934 or e-mail audra.dickson@dnr.ga.gov.

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Public Hearing Information:

EPD will hold a public hearing at 7:00 p.m. on June 27, 2017. The hearing will be held at the Putnam County Administrative Complex located at 117 Putnam Drive, Eatonton, Georgia 31024. The purpose of the public hearing is to receive comments on the draft NPDES permit for Georgia Power Company – Plant Branch.

The public hearing is a formal process to receive comments on the draft permit. Participants who wish to comment for the record are requested to sign in upon arrival. Hearing participants will not be subject to questions from the audience, but may be questioned by the Hearing Officer for clarification of technical points or to develop a better understanding of statements. Questions asked by participants making statements will be answered by EPD in writing at a later date. Lengthy statements or statements of a considerable technical or economic nature should be submitted in writing for the official record. During the hearing, oral statements shall be limited to three (3) minutes to allow everyone an opportunity to be heard. Comments should be confined to water quality issues as they relate to the draft permit.

Written comments are welcomed. To ensure their consideration, written comments should be received by close of business on June 29, 2017. Please address written comments to the address listed below, or via e-mail at EPDcomments@dnr.ga.gov . If you choose to e-mail your comments, please be sure to include the words "NPDES Permit Issuance – Georgia Power Company – Plant Branch" in the subject line to ensure that your comments will be forwarded to the correct staff. The permit application, draft permit, comments received, and other information are available for review at 2 MLK Jr. Drive, Suite 1152E, Atlanta, GA 30334, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday. Please bring this notice to the attention of interested persons.

Permit No. GA0026051
Issuance Date: XXXX XX, XXXX

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

National Pollutant Discharge Elimination System Permit

In accordance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), hereinafter called the State Act; the Federal Water Pollution Control Act, as amended (33 U.S. C. 1251 et seq.), hereinafter called the Federal Act; and the Rules and Regulations promulgated pursuant to each of these Acts,

Georgia Power Company
Plant Branch
241 Ralph McGill Blvd, NE
Atlanta, Georgia 30308

is issued a permit to discharge from a facility located at

1100 Milledgeville Road
Milledgeville, Georgia 31061
Putnam County

to receiving waters

Lake Sinclair in the Oconee River Basin.

in accordance with effluent limitations, monitoring requirements and other conditions set forth in the permit.

This permit is issued in reliance upon the permit application signed on February 28, 2017, any other applications upon which this permit is based, supporting data entered therein or attached thereto, and any subsequent submittal of supporting data.

This permit shall become effective on XXXX XX, XXXX.

This permit and the authorization to discharge shall expire at midnight XXXX XX, XXXX.

Richard E. Dunn, Director
Environmental Protection Division

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PART I

A.1. Effluent Limitations and Monitoring Requirements

During the period specified on the first page of this permit, the permittee is authorized to discharge from outfall number 03[2] – Ash pond B discharge (combined ash pond system).

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements[1]		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	Report	Report	--	--	2/Month	Estimation	Final Effluent
Total Suspended Solids	--	--	30	100	2/Month	Grab	Final Effluent
Oil & Grease	--	--	15	20	2/Month	Grab	Final Effluent

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored twice per month by grab sample.

[1] All the parameters must be monitored if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.

[2] There shall be no discharge of floating solids, oil, scum or visible foam other than trace amounts.

A.2. Effluent Limitations and Monitoring Requirements

During the period specified on the first page of this permit, the permittee is authorized to discharge from outfall numbers 04[2], 05[2], and 06[2] – Ash pond C emergency overflow comingled with stormwater, ash pond E emergency overflow commingled with stormwater, and ash pond B emergency overflow commingled with stormwater.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements[1]		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	Report	Report	--	--	2/Month	Estimation	Final Effluent
Total Suspended Solids	--	--	30	100	2/Month	Grab	Final Effluent
Oil & Grease	--	--	15	20	2/Month	Grab	Final Effluent

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored twice per month by grab sample.

[1] All the parameters must be monitored if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.

[2] There shall be no discharge of floating solids, oil, scum or visible foam other than trace amounts.

B. Monitoring

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. The permittee shall maintain a written sampling plan and schedule onsite.

2. Sampling Period

a. Unless otherwise specified in this permit, quarterly samples shall be taken during the periods January-March, April-June, July-September, and October-December.

b. Unless otherwise specified in this permit, semiannual samples shall be taken during the periods January-June and July-December.

c. Unless otherwise specified in this permit, annual samples shall be taken during the period of January-December.

3. Monitoring Procedures

Analytical methods, sample containers, sample preservation techniques, and sample holding times must be consistent with the techniques and methods listed in 40 CFR Part 136. The analytical method used shall be sufficiently sensitive. EPA-approved methods must be applicable to the concentration ranges of the NPDES permit samples.

4. Detection Limits

All parameters will be analyzed using the appropriate detection limits. If the results for a given sample are such that a parameter is not detected at or above the specified detection limit, a value of "NOT DETECTED" will be reported for that sample and the detection limit will also be reported.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The exact place, date, and time of sampling or measurements, and the person(s) performing the sampling or the measurements;

b. The dates and times the analyses were performed, and the person(s) performing the analyses;

c. The analytical techniques or methods used;

d. The results of all required analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report. Such increased monitoring frequency shall also be indicated. EPD may require, by written notification, more frequent monitoring or the monitoring of other pollutants not required in this permit.

7. Records Retention

The permittee shall retain records of all monitoring information, including all records of analyses performed, calibration and maintenance of instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a minimum of three (3) years from the date of the sample, measurement, report or application, or longer if requested by EPD.

8. Penalties

The Federal Clean Water Act and the Georgia Water Quality Control Act provide that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine or by imprisonment, or by both. The Federal Clean Water Act and the Georgia Water Quality Control Act also provide procedures for imposing civil penalties which may be levied for violations of the Act, any permit condition or limitation established pursuant to the Act, or negligently or intentionally failing or refusing to comply with any final or emergency order of the Director of EPD

C. Definitions

1. The "daily average" mass means the total discharge by mass during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days sampled during the calendar month when the measurements were made.

2. The "daily maximum" mass means the total discharge by mass during any calendar day.

3. The "daily average" concentration means the arithmetic average of all the daily determinations of concentrations made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample.

4. The "daily maximum" concentration means the daily determination of concentration for any calendar day.

5. A "calendar day" is defined as any consecutive 24-hour period.

6. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

7. "Severe property damage" means substantial physical damage to property, damage to treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

8. "EPD" as used herein means the Environmental Protection Division of the Department of Natural Resources.

9. "State Act" as used herein means the Georgia Water Quality Control Act (Official Code of Georgia Annotated; Title 12, Chapter 5, Article 2).

10. "Rules" as used herein means the Georgia Rules and Regulations for Water Quality Control.

D. Reporting Requirements

1. The permittee must electronically report the DMR, OMR and additional monitoring data using the web based electronic NetDMR reporting system, unless a waiver is granted by EPD.

   a. The permittee must comply with the Federal National Pollutant Discharge Elimination System Electronic Reporting regulations in 40 CFR §127. The permittee must electronically report the DMR, OMR, and additional monitoring data using the web based electronic NetDMR reporting system online at: https://netdmr.epa.gov/netdmr/public/home.htm

   b. Monitoring results obtained during the calendar month shall be summarized for each month and reported on the DMR. The results of each sampling event shall be reported on the OMR and submitted as an attachment to the DMR.

   c. The permittee shall submit the DMR, OMR and additional monitoring data no later than 11:59 p.m. on the 15th day of the month following the sampling period.

   d. All other reports required herein, unless otherwise stated, shall be submitted to the EPD Office listed on the permit issuance letter signed by the Director of EPD.

2. No later than December 21, 2020, the permittee must electronically report the following compliance monitoring data and reports using the online web based electronic system approved by EPD, unless a waiver is granted by EPD:

   a. Noncompliance Notification;
   b. Other noncompliance; and
   c. Bypass

3. **Other Reports**

   All other reports required in this permit not listed above in Part I.D.2 or unless otherwise stated, shall be submitted to the EPD Office listed on the permit issuance letter signed by the Director of EPD.

4. Other Noncompliance

All instances of noncompliance not reported under Part I.B. and Part II. A. shall be reported to EPD at the time the monitoring report is submitted.

5. Signatory Requirements

All reports, certifications, data or information submitted in compliance with this permit or requested by EPD must be signed and certified as follows:

a. Any State or NPDES Permit Application form submitted to the EPD shall be signed as follows in accordance with the Federal Regulations, 40 C.F.R. 122.22:

1. For a corporation, by a responsible corporate officer. A responsible corporate officer means:

i a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision making functions for the corporation, or

ii. the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or

3. For a municipality, State, Federal, or other public facility, by either a principal executive officer or ranking elected official.

b. All other reports or requests for information required by the permit issuing authority shall be signed by a person designated in (a) above or a duly authorized representative of such person, if:

1. The representative so authorized is responsible for the overall operation of the facility from which the discharge originates, e.g., a plant manager, superintendent or person of equivalent responsibility;

2. The authorization is made in writing by the person designated under (a) above; and

3. The written authorization is submitted to the Director.

c. Any changes in written authorization submitted to the permitting authority under (b) above which occur after the issuance of a permit shall be reported to the permitting authority by submitting a copy of a new written authorization which meets the requirements of (b) and (b.1) and (b.2) above.

d. Any person signing any document under (a) or (b) above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

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PART II

A. Management Requirements

1. Notification of Changes

a. The permittee shall provide EPD at least 90 days advance notice of any planned physical alterations or additions to the permitted facility that meet the following criteria:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b);

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1); or

3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

b. The permittee shall give at least 90 days advance notice to EPD of any planned changes to the permitted facility or activity which may result in noncompliance with permit requirements.

c. Following the notice in paragraph a. or b. of this condition the permit may be modified. The permittee shall not make any changes, or conduct any activities, requiring notification in paragraph a. or b. of this condition without approval from EPD.

d. The permittee shall provide at least 30 days advance notice to EPD of:

1. any planned expansion or increase in production capacity; or

2. any planned installation of new equipment or modification of existing processes that could increase the quantity of pollutants discharged or result in the discharge of pollutants that were not being discharged prior to the planned change

if such change was not identified in the permit application(s) upon which this permit is based and for which notice was not submitted under paragraphs a. or b. of this condition.

e. All existing manufacturing, commercial, mining, and silvicultural dischargers shall notify EPD as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (i) 100 μg/L, (ii) five times the maximum concentration reported for that pollutant in the permit application, or (iii) 200 μg/L for acrolein and acrylonitrile, 500 μg/L for 2,4 dinitrophenol and for 2-methyl-4-6-dinitrophenol, or 1 mg/L antimony.

f. All existing manufacturing, commercial, mining, and silvicultural dischargers shall notify EPD as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in any discharge on a nonroutine or infrequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (i) 500 μg/L, (ii) ten times the maximum concentration reported for that pollutant in the permit application, or (iii) 1 mg/L antimony.

g. Upon the effective date of this permit, the permittee shall submit to EPD an annual certification in June of each year certifying whether or not there has been any change in processes or wastewater characteristics as described in the submitted NPDES permit application that required notification in paragraph a., b., or d. of this condition. The permittee shall also certify annually in June whether the facility has received offsite wastes or wastewater and detail any such occurrences.

2. Noncompliance Notification

If, for any reason, the permittee does not comply with, or will be unable to comply with any effluent limitation specified in this permit, the permittee shall provide EPD with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

a. A description of the discharge and cause of noncompliance; and

b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

3. Facility Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypassing

a. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to EPD at least 10 days (if possible) before the date of the bypass. The permittee shall submit notice of any unanticipated bypass with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

1. A description of the discharge and cause of noncompliance; and

2. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

b. Any diversion or bypass of facilities covered by this permit is prohibited, except (i) where unavoidable to prevent loss of life, personal injury, or severe property damage; (ii) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if the permittee could have installed adequate back-up equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and (iii) the permittee submitted a notice as required above. The permittee shall operate the treatment works, including the treatment plant and total sewer system, to minimize discharge of the pollutants listed in Part I of this permit from combined sewer overflows or bypasses. Upon written notification by EPD, the permittee may be required to submit a plan and schedule for reducing bypasses, overflows, and infiltration in the system.

6. Sludge Disposal Requirements

Sludge shall be disposed of in accordance with the regulations and guidelines established by EPD, the Federal Clean Water Act, and the Resource Conservation and Recovery Act (RCRA). Prior to disposal of sludge by any method other than co-disposal in a permitted sanitary landfill, the permittee shall submit a sludge management plan to the Watershed Protection Branch of EPD for written approval. For land application of nonhazardous sludge, the permittee shall comply with the applicable criteria outlined in the most current version of EPD's "Guidelines for Land Application of Sewage Sludge (Biosolids) at Agronomic Rates" and with the State Rules, Chapter 391-3-6-.17. EPD may require more stringent control of this activity. Prior to land applying nonhazardous sludge, the permittee shall submit a sludge management plan to EPD for review and approval. Upon approval, the plan for land application will become a part of the NPDES permit upon modification of the permit.

7. Sludge Monitoring Requirements

The permittee shall develop and implement procedures to ensure adequate year-round sludge disposal. The permittee shall monitor the volume and concentration of solids removed from the plant. Records shall be maintained which document the quantity of solids removed from the plant. The ultimate disposal of solids shall be reported (in the unit of lbs) as specified in Part I.D of this permit.

8. Power Failures

Upon the reduction, loss, or failure of the primary source of power to said water pollution control facilities, the permittee shall use an alternative source of power if available to reduce or otherwise control production and/or all discharges in order to maintain compliance with the effluent limitations and prohibitions of this permit.

If such alternative power source is not in existence, and no date for its implementation appears in Part I, the permittee shall halt, reduce or otherwise control production and/or all discharges from wastewater control facilities upon the reduction, loss, or failure of the primary source of power to said wastewater control facilities.

9. Operator Certification Requirements

The permittee shall ensure that, when required, a certified operator is in charge of the facility in accordance with Georgia State Board of Examiners for Certification of Water and Wastewater Treatment Plant operators And Laboratory Analysts Rule 43-51-6.(b)

10. Laboratory Analyst Certification Requirements

The permittee shall ensure that, when required, the person in responsible charge of the laboratory performing the analyses for determining permit compliance is certified in accordance with the Georgia Certification of Water and Wastewater Treatment Plant operators and Laboratory Analysts Act, as amended, and the Rules promulgated thereunder.

B. Responsibilities

1. Right of Entry

The permittee shall allow the Director of EPD, the Regional Administrator of EPA, and/or their authorized representatives, agents, or employees, upon the presentation of credentials:

a. To enter upon the permittee's premises where a discharge source is located or in which any records are required to be kept under the terms and conditions of this permit; and

b. At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and to sample any substance or parameters in any location.

2. Transfer of Ownership or Control

A permit may be transferred to another person by a permittee if:

a. The permittee notifies the Director of EPD in writing of the proposed transfer at least thirty (30) days in advance of the proposed transfer;

b. A written agreement containing a specific date for transfer of permit responsibility and coverage between the current and new permittee (including acknowledgement that the existing permittee is liable for violations up to that date, and that the new permittee is liable for violations from that date on) is submitted to the Director at least thirty (30) days in advance of the proposed transfer; and

c. The Director, within thirty (30) days, does not notify the current permittee and the new permittee of EPD's intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

3. Availability of Reports

Except for data deemed to be confidential under O.C.G.A. § 12-5-26 or by the Regional Administrator of the EPA under the Code of Federal Regulations, Title 40, Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at an office of EPD. Effluent data, permit applications, permittee's names and addresses, and permits shall not be considered confidential.

4. Permit Modification

After written notice and opportunity for a hearing, this permit may be modified, suspended, revoked or reissued in whole or in part during its term for cause including, but not limited to, the following:

a. Violation of any conditions of this permit;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge; or

d. To comply with any applicable effluent limitation issued pursuant to the order of the United States District Court for the District of Columbia issued on June 8, 1976, in Natural Resources Defense Council, Inc. et.al. v. Russell E. Train, 8 ERC 2120(D.D.C. 1976), if the effluent limitation so issued:

1. is different in conditions or more stringent than any effluent limitation in the permit; or

2. controls any pollutant not limited in the permit.

5. Toxic Pollutants

The permittee shall comply with effluent standards or prohibitions established pursuant to Section 307(a) of the Federal Clean Water Act for toxic pollutants, which are present in the discharge within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

6. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

7. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Federal Clean Water Act.

8. Water Quality Standards

Nothing in this permit shall be construed to preclude the modification of any condition of this permit when it is determined that the effluent limitations specified herein fail to achieve the applicable State water quality standards.

9. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Expiration of Permit

The permittee shall not discharge after the expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information, forms, and fees as are required by EPD at least 180 days prior to the expiration date.

11. Contested Hearings

Any person who is aggrieved or adversely affected by an action of the Director of EPD shall petition the Director for a hearing within thirty (30) days of notice of such action.

12. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

13. Best Management Practices

The permittee will implement best management practices to control the discharge of hazardous and/or toxic materials from ancillary manufacturing activities. Such activities include, but are not limited to, materials storage, in-plant transfer, process and material handling, loading and unloading operations, plant site runoff, and sludge and waste disposal.

14. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

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15. Duty to Provide Information

a. The permittee shall furnish to the EPD Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish upon request copies of records required to be kept by this permit.

b. When the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or any report to the Director, it shall promptly submit such facts and information.

16. Duty to Comply

a. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Georgia Water Quality Control Act (O.C.G.A. § 12-5-20 et. seq.) and is grounds for enforcement action; for permit termination; revocation and reissuance, or modification; or for denial of a permit renewal application. Any instances of noncompliance must be reported to EPD as specified in Part I. D and Part II.A of this permit.

b. Penalties for violations of permit conditions. The Federal Clean Water Act and the Georgia Water Quality Control Act (O.C.G.A. § 12-5-20 et. seq.) provide that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this permit, makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine or by imprisonment, or by both. The Georgia Water Quality Control Act (Act) also provides procedures for imposing civil penalties which may be levied for violations of the Act, any permit condition or limitation established pursuant to the Act, or negligently or intentionally failing or refusing to comply with any final or emergency order of the Director.

17. Upset Provisions

Provisions of 40 CFR 122.41(n)(1)-(4), regarding "Upset" shall be applicable to any civil, criminal, or administrative proceeding brought to enforce this permit.

PART III

A. Previous Permits

1. All previous State wastewater permits issued to this facility, whether for construction or operation, are hereby revoked by the issuance of this permit. This action is taken to assure compliance with the Georgia Water Quality Control Act, as amended, and the Federal Clean Water Act, as amended. Receipt of the permit constitutes notice of such action. The conditions, requirements, terms and provisions of this permit authorizing discharge under the National Pollutant Discharge Elimination System govern discharges from this facility.

B. Schedule of Compliance

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule: N/A

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

C. Special Conditions

1. <u>No Discharge of Polychlorinated Biphenyl Compounds</u>

   There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

2. <u>Coal Ash Pond Dewatering Plan (Plan)</u>

   The permittee shall provide EPD at least 90 days written advance notice of any coal ash pond dewatering activities and a Coal Ash Pond Dewatering Plan for review and approval. The Plan must contain at a minimum the following components:

   a. Detailed description of the wastewater treatment system components, flow schematics, and appropriate maps of the site;

   b. Detailed description of the process controls being installed, measured and maintained;

   c. Detailed description of the monitoring devices, equipment and associated activities;

d. At a minimum, twice a month representative effluent sampling and monitoring for the following pollutants of concern: pH (s.u.), total suspended solids, biochemical oxygen demand,$_{5\text{-day}}$, oil and grease, turbidity (NTU), total dissolved solids, copper, total, selenium, total, arsenic, total, mercury, total, chromium, total, lead, total, cadmium, total, zinc, total, nickel, total, ammonia, TKN, organic nitrogen, nitrate/nitrite, phosphorus, ortho phosphorus, and hardness;

e. At a minimum, once a month upstream and downstream representative sampling for the pollutants of concern listed above in Part III.C.2.d above;

f. Description of the sufficiently sensitive analytical methods employed; and

g. Description of data collection, record keeping and reporting to EPD.

EPD will evaluate the submitted data and determine if there is a reasonable potential for the discharge to cause or contribute to a violation of the instream water quality standards and if necessary, may open the permit to include applicable effluent limits to protect the receiving water body.

D. Biomonitoring and Toxicity Reduction Requirements

1. The permittee shall comply with effluent standards or prohibitions established by section 307(a) of the Federal Act and with chapter 391-3-6-.03(5)(e) of the State Rules and may not discharge toxic pollutants in concentrations or combinations that are harmful to humans, animals, or aquatic life.

If toxicity is suspected in the effluent, EPD may require the permittee to perform any of the following actions:

a. Acute biomonitoring tests;

b. Chronic biomonitoring tests;

c. Stream studies;

d. Priority pollutant analyses;

e. Toxicity reduction evaluations (TRE); or

f. Any other appropriate study.

2. EPD will specify the requirements and methodologies for performing any of these tests or studies. Unless other concentrations are specified by EPD, the critical concentration used to determine toxicity in biomonitoring tests will be the effluent instream wastewater concentration (IWC) based on the representative plant flow of the facility and the critical low flow of the receiving stream (7Q10). The endpoints that will be reported are the effluent concentration that is lethal to 50% of the test organisms (LC50) if the test is for acute toxicity, and the no observed effect concentration (NOEC) of effluent if the test is for chronic toxicity.

   The permittee must eliminate effluent toxicity and supply EPD with data and evidence to confirm toxicity elimination.

E. Coal Ash Pond Impoundment Integrity

Imminent impoundment failure conditions shall be reported **immediately** to the designated local entity in the County with responsibility for emergency management and EPD's 24 hour Emergency Response contact.

1. Operation and Maintenance

   a. The following impoundments that are used to hold or treat wastewater and associated waste materials shall be operated and maintained to prevent the discharge of pollutants to waters of the united states, except as authorized under this permit, as follows:

      i. Ash Pond B
      ii. Ash Pond C
      iii. Ash Pond D
      iv. Ash Pond E

   b. When practicable, piezometers or other appropriate instrumentation shall be installed as a means of assessing impoundment integrity.

   c. Within 90 days of the effective date of this permit, the permittee shall submit a report that identifies and shows the location of all pipes, utilities or other penetrations through or beneath the impoundment(s). A Georgia-registered professional engineer must certify in the report what, if any, pipes, utilities, and penetrations exist and their condition. The report must address these penetrations and provide an inspection frequency and method of evaluation for them.

2. Inspections

a. Inspections of dams, dikes and toe areas for erosion shall, at a minimum, include observations of:

I. Cracks or bulges;
II. Subsidence;
III. Wet or soft soil;
IV. Changes in geometry;
V. Elevation of the impounded water and freeboard, depth of sediment and slurry;
VI. Changes in vegetation such as being overly lush;
VII. Obstructive vegetation and trees;
VIII. Animal burrows;
IX. Changes to liners (if applicable);
X. Spillway integrity; and
XI. Any other changes which may indicate a potential compromise to impoundment integrity.

b. All impoundments shall be inspected at least **weekly** by qualified personnel with knowledge and training in impoundment integrity.

c. All impoundments shall be inspected annually by a State-registered professional engineer or professional geologist with knowledge and training in impoundment integrity.

d. The findings of each inspection shall be documented in a written inspection report and the personnel conducting the inspection will certify that the inspection occurred.

e. The certified inspection report shall be submitted to EPD annually by June 30th.

3. Corrective Measures

a. For Category I structures or structures regulated under the Safe Dams Act, the permittee shall coordinate with EPD (EPD's Safe Dams Unit, EPD assigned Compliance Office, and EPD's Emergency Response Contact) and the permittee's Engineer of Record **immediately (within 24 hours)** after discovering any changes that may be signs of an imminent impoundment failure, or potentially significant compromise to the structural integrity of the impoundment; such as, but not limited to, significant increases in seepage or seepage carrying sediment, or as the formation of large cracks, slumping, or new wet areas not related to recent precipitation.

b. For structures not regulated by the Safe Dams Act, the permittee shall retain a qualified professional and coordinate with EPD (EPD's Safe Dams Unit, EPD assigned Compliance Office, and EPD's Emergency Response Contact) **immediately (within 24 hours)** after discovering any changes that may be signs of an imminent impoundment failure, or potentially significant compromise to the structural integrity of the impoundment; such as, but not limited to, significant increases in seepage or seepage carrying sediment or the formation of large cracks, slumping, or new wet areas not related to recent precipitation.

c. The permittee shall begin the corrective measures agreed upon by EPD and the permittee **within 60 days** of first observing any other issues which may have long term impacts on the structural integrity of the impoundment, such as trees growing on the impoundment or vegetation blocking spillways, culverts or other drainage pathways.

4. Reporting and Recordkeeping Requirements

a. **Within 5 days** of discovering conditions that indicate a potentially significant compromise to the structural integrity of the impoundment, the permittee must notify EPD (EPD's Safe Dams Unit and EPD assigned Compliance Office) in writing, describing the findings of the inspection, corrective actions taken, and expected outcomes.

b. The permittee shall maintain records of all impoundment inspection and maintenance activities, including corrective actions made in response to inspections and all other activities undertaken to repair or maintain the impoundments referenced in this permit. All records shall be retained, and made available to State or Federal inspectors upon request.

c. The permittee shall submit an **annual report** to EPD by June 30th, summarizing findings of all monitoring activities, inspections and corrective measures pertaining to the structural integrity, operation and maintenance of all impoundments referenced in this permit.

d. All pertinent impoundment permits, design, construction, operation, and maintenance information, including but not limited to: plans, geotechnical and structural integrity studies, copies of permits, associated documentation of certifications by all qualified personnel, State-registered professional engineers, professional geologists, and regulatory approvals, shall be retained and made available to State or Federal inspectors upon request.

e. The permittee shall maintain the applicable certification and training records of the personnel that conducted the inspections required under this Section.

5. Once the issuance of the Coal Combustion Residuals (CCR) permit is a final action of the Director and as required under Chapter 391-3-4 Rules for Solid Waste Management, the permittee shall no longer be subject to the requirements specified in Part III.E of this NPDES permit for that Ash Pond or, if collectively, for all the Ash Ponds.

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

The Georgia Environmental Protection Division proposes to issue an NPDES permit to the applicant identified below. The draft permit places conditions on the discharge of pollutants from the power plant to waters of the State.

Technical Contact: Ian McDowell *(ian.mcdowell@dnr.ga.gov)*
404-232-1567

Draft permit:

- ☐ first issuance
- ☐ reissuance with no or minor modifications from previous permit
- ☒ reissuance with substantial modifications from previous permit
- ☐ modification of existing permit
- ☒ requires EPA review

1.0 FACILITY INFORMATION

1.1 NPDES Permit No.: GA0026051

1.2 Name and Address of Owner/Applicant

Georgia Power Company
Plant Branch
241 Ralph McGill Boulevard, NE
Atlanta, Georgia 30308

1.3 Name and Address of Facility

Plant Branch
1100 Milledgeville Road
Milledgeville, Georgia 31061
(Putnam County)

1.4 Location and Description of the discharge (as reported by applicant)

Outfall ID	Latitude	Longitude	Receiving Waterbody
03	33° 11' 45" N (33.195833° N)	83° 17' 53" W (83.298056° W)	Lake Sinclair
04	33° 11' 10" N (33.186111° N)	83° 18' 17" W (83.304722° W)	Lake Sinclair
05	33° 11' 54" N (33.198333° N)	83° 19' 21" W (83.322500° W)	Lake Sinclair
06	33° 11' 19" N (33.188611° N)	83° 18' 08" W (83.302222° W)	Lake Sinclair

1.5 Production Capacity: N/A

1.6 SIC Code & Description: 4911 – Generation of electricity

1.7 Description of Industrial Processes

Plant Branch is a steam electric power generating facility that generated electricity through combustion of fossil fuels. The facility became retired in April 2015. The only wastestreams generated and discharged at the site are low volume wastewater and legacy coal ash pond wastewater comingled with stormwater.

1.8 Description of the Wastewater Treatment Facility

Outfall	Operation Description	Treatment Description
03	Ash Pond B Discharge (Combined Ash Pond System)	Sedimentation, flocculation, and chemical precipitation
04	Ash Pond C Emergency Overflow	Sedimentation
05	Ash Pond E Emergency Overflow	Sedimentation
06	Ash Pond B Emergency Overflow	Sedimentation
01A	Deleted - outfall decommissioned	Discharge not authorized
01B	Deleted - outfall decommissioned	Discharge not authorized
01C	Deleted - outfall decommissioned	Discharge not authorized
01D	Deleted - outfall decommissioned	Discharge not authorized
01F	Deleted - outfall decommissioned	Discharge not authorized
02A	Deleted - outfall decommissioned	Discharge not authorized
02B	Deleted - outfall decommissioned	Discharge not authorized
02C	Deleted - outfall decommissioned	Discharge not authorized
02D	Deleted - outfall decommissioned	Discharge not authorized
07	Deleted - outfall decommissioned	Discharge not authorized
08	Deleted - outfall decommissioned	Discharge not authorized
09	Deleted - outfall decommissioned	Discharge not authorized
010	Deleted - outfall decommissioned	Discharge not authorized
011	Deleted - outfall decommissioned	Discharge not authorized
012	Deleted - outfall decommissioned	Discharge not authorized
029	Deleted - outfall decommissioned	Discharge not authorized

1.9 Type of Wastewater Discharge

☒ process wastewater ☒ stormwater

☐ domestic wastewater ☐ combined (describe)

☒ other (description) – *Low volume discharges associated with plant decommissioning*

1.10 Characterization of Effluent Discharge as Reported by Applicant

(Form 2C, Section V, Part A only. Please refer to the application for additional analysis)

1.10.a Outfall No. 03 – Ash Pond B Discharge (Combined Ash Pond System)

Effluent Characteristics (as Reported by Applicant)	Maximum Daily Value	Average Daily Value
Flow (MGD)	5.76	NA
Biochemical Oxygen Demand,$_{5\text{-day}}$ (mg/L)	<2	NA
Total Suspended Solids (mg/L)	<5	NA
Temperature, Winter (°C)	11.1	NA
Temperature, Summer (°C)	30.4	NA
Ammonia (mg/L)	0.19	NA
Total Phosphorus (mg/L)	<0.02	NA

1.10.b Outfall No. 04 - Ash pond C emergency overflow commingled with stormwater

Effluent Characteristics (as Reported by Applicant)	Maximum Daily Value	Average Daily Value
Flow (MGD)	10.80	NA
Biochemical Oxygen Demand,$_{5\text{-day}}$ (mg/L)	<2	NA
Total Suspended Solids (mg/L)	<5	NA
Temperature, Winter (°C)	11.1	NA
Temperature, Summer (°C)	30.4	NA
Ammonia (mg/L)/	0.19	NA
Total Phosphorus (mg/L)	<0.02	NA

1.10.c Outfall No. 05 - Ash pond E emergency overflow commingled with stormwater

Effluent Characteristics (as Reported by Applicant)	Maximum Daily Value	Average Daily Value
Flow (MGD)	5.18	NA
Biochemical Oxygen Demand,$_{5\text{-day}}$ (mg/L)	<2	NA
Total Suspended Solids (mg/L)	<5	NA
Temperature, Winter (°C)	11.1	NA
Temperature, Summer (°C)	30.4	NA
Ammonia (mg/L)	0.19	NA
Total Phosphorus (mg/L)	<0.02	NA

1.10.d Outfall No. 06 - Ash pond B emergency overflow commingled with stormwater

Effluent Characteristics (as Reported by Applicant)	Maximum Daily Value	Average Daily Value
Flow (MGD)	10.80	NA
Biochemical Oxygen Demand,$_{5\text{-day}}$ (mg/L)	<2	NA
Total Suspended Solids (mg/L)	<5	NA
Temperature, Winter (°C)	11.1	NA
Temperature, Summer (°C)	30.4	NA
Ammonia (mg/L)	0.19	NA
Total Phosphorus (mg/L)	<0.02	NA

2.0 APPLICABLE REGULATIONS

2.1 State Regulations

Chapter 391-3-6 of the Georgia Rules and Regulations for Water Quality Control

2.2 Federal Regulations

Source	Activity	Applicable Regulation
Generation of Electricity	Steam Electric Power Generating Point Source Category	40 CFR 122 40 CFR 125 40 CFR 423

2.3 Industrial Effluent Limit Guideline(s)

Code of Federal Regulations, 40 CFR Part 423 – Steam Electric Power Generating Point Source Category

See Appendix A of this Fact Sheet for a copy of the 40 CFR Part 423 – Steam Electric Power Generating Source Category regulations.

3.0 WATER QUALITY STANDARDS & RECEIVING WATERBODY INFORMATION

Section 301(b)(1)(C) of the Clean Water Act (CWA) requires the development of limitations in permits necessary to meet water quality standards. Federal Regulations 40 CFR 122.4(d) require that conditions in NPDES permits ensure compliance with the water quality standards which are composed of use classifications, numeric and or narrative water quality criteria and an anti-degradation policy. The use classification system designates the beneficial uses that each waterbody is expected to achieve, such as drinking water, fishing, or recreation. The numeric and narrative water quality criteria are deemed necessary to support the beneficial use classification for each water body. The anti-degradation policy represents an approach to maintain and to protect various levels of water quality and uses.

3.1 Receiving Waterbody Classification and Information

Rules and Regulations of the State of Georgia 391-3-6-.03(6) – Drinking Water and Recreation

Drinking Water,

Those waters approved as a source for public drinking water systems permitted or to be permitted by the Environmental Protection Division. Waters classified for drinking water supplies will also support the fishing use and any other use requiring water of a lower quality.

(i) Bacteria: For the months of May through October, when water contact recreation activities are expected to occur, fecal coliform not to exceed a geometric mean of 200 per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours. Should water quality and sanitary studies show fecal coliform levels from non-human sources exceed 200/100 mL (geometric mean) occasionally, then the allowable geometric mean fecal coliform shall not exceed 300 per 100 mL in lakes and reservoirs and 500 per 100 mL in free flowing freshwater streams. For the months of November through April, fecal coliform not to exceed a geometric mean of 1,000 per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours and not to exceed a maximum of 4,000 per 100 mL for any sample. The State does not encourage swimming in these surface waters since a number of factors which are beyond the control of any State regulatory agency contribute to elevated levels of bacteria.

(ii) Dissolved oxygen: A daily average of 6.0 mg/L and no less than 5.0 mg/L at all times for waters designated as trout streams by the Wildlife Resources Division. A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times for water supporting warm water species of fish.

(iii) pH: Within the range of 6.0 - 8.5.

(iv) No material or substance in such concentration that, after treatment by the public water treatment system, exceeds the maximum contaminant level established for that substance by the Environmental Protection Division pursuant to the Georgia Rules for Safe Drinking Water.

(v) Temperature: Not to exceed 90°F. At no time is the temperature of the receiving waters to be increased more than 5°F above intake temperature except that in estuarine waters the increase will not be more than 1.5°F. In streams designated as primary trout or small mouth bass waters by the Wildlife Resources Division, there shall be no elevation of natural stream temperatures. In streams designated as secondary trout waters, there shall be no elevation exceeding 2°F of natural stream temperatures.

Recreation,

General recreational activities such as water skiing, boating, and swimming, or for any other use requiring water of a lower quality, such as recreational fishing. These criteria are not to be interpreted as encouraging water contact sports in proximity to sewage or industrial waste discharges regardless of treatment requirements:

(i) Bacteria:

1. Coastal waters: Culturable enterococci not to exceed a geometric mean of 35 CFU (colony forming units) per 100 mL. The geometric mean duration shall not be greater than 30 days. There shall be no greater than a ten percent excursion frequency of an enterococci statistical threshold value (STV) of 130 CFU per 100 mL the same 30-day interval.

2. All other recreational waters: Culturable E. coli not to exceed a geometric mean of 126 CFU (colony forming units) per 100 mL. The geometric mean duration shall not be greater than 30 days. There shall be no greater than a ten percent excursion frequency of an E. coli statistical threshold value (STV) of 410 CFU per 100 mL in the same 30-day interval.

(ii) Dissolved Oxygen: A daily average of 6.0 mg/L and no less than 5.0 mg/L at all times for waters designated as trout streams by the Wildlife Resources Division. A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times for waters supporting warm water species of fish.

(iii) pH: Within the range of 6.0 - 8.5.

(iv) Temperature: Not to exceed 90°F. At no time is the temperature of the receiving waters to be increased more than 5°F above intake temperature except that in estuarine waters the increase will not be more than 1.5°F. In streams designated as primary trout or smallmouth bass waters by the Wildlife Resources Division, there shall be no elevation of natural stream temperatures. In streams designated as secondary trout waters, there shall be no elevation exceeding 2°F natural stream temperatures.

3.2 Ambient Information

Outfall ID	7Q10[1] (cfs)	1Q10[1] (cfs)	Hardness (mg/L)	Annual Average Flow[1] (cfs)	Upstream Total Suspended Solids (mg/l)
03	NA	NA	20.4	N/A	7.2
04	NA	NA	20.4	N/A	7.2
05	NA	NA	20.4	N/A	7.2
06	NA	NA	20.4	N/A	7.2

[1] The receiving waterbody is Lake Sinclair and does not have traditional flow values; a dilution factor of 1:156 was used instead based on modeling.

3.3 Georgia 305(b)/303(d) List Documents

2014 Integrated 305(b)/303(d) List

Reach Name/ ID #/ Data Source	Reach Location/ County	River Basin/ Use	Criterion Violated	Potential Causes	Extent		Category	Priority	Notes
Sinclair Lake	Intersection of Putnam, Baldwin and Hancock Counties	Oconee	Temp	11	650	acres	4a		TMDL completed Temp 2002
R030701011808	Putnam/ Baldwin/ Hancock County	Recreation/ Drinking Water							
1.3									

3.4 Total Maximum Daily Load (TMDL)

There is a TMDL (completed 2002) in effect for temperature which affected Plant Branch while it was still operating. Due to the nature of the discharge at the retired plant, there is no reasonable potential that the discharge will cause or contribute to a variance in ambient water temperature.

3.5 Wasteload Allocation Date:

Requested permit information for Reasonable Potential Analysis on March 1, 2016

See Appendix B of this Fact Sheet for the Wasteload Allocation (WLA).

4.0 EFFLUENT LIMITS AND PERMIT CONDITIONS

4.1 Reasonable Potential Analysis (RP)

Title 40 of the Federal Code of Regulations, 40 CFR 122.44(d) requires delegated States to develop procedures for determining whether a discharge causes, has the reasonable potential to cause, or contributes to an instream excursion above a narrative or numeric criteria within a State water. If such reasonable potential is determined to exist, the NPDES permit must contain pollutant effluent limits and/or effluent limits for whole effluent toxicity. Georgia's Reasonable Potential Procedures are based on Georgia's Rules and Regulations for Water Quality Control (Rules), Chapter 391-3-6-.06(4)(d)5. The chemical specific and biomonitoring data and other pertinent information in EPD's files will be considered in accordance with the review procedures specified in the Rules in the evaluation of a permit application and in the evaluation of the reasonable potential for an effluent to cause an exceedence in the numeric or narrative criteria.

A Reasonable Potential Analysis was performed on the data submitted with the application and the results of those analyses are stated below in the following sections.

EPD evaluated the data provided in the application and supporting documents. If a pollutant is listed below, EPD determined it was a pollutant of concern and there may be a reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standards. If a pollutant is not listed below, EPD determined that the pollutant is not a pollutant of concern or has determined, based on the data provided in the application, there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standards. An example would be if the applicant reported "not detect," "below detection limit," or a value that was below the detection limit for a pollutant.

Based on the RP conducted for the discharges there is no need for WQBEL for metals for outfalls 03, 04, 05, and 06. See Appendix D - RP analysis spreadsheet calculation for each outfall attached to this Fact Sheet.

4.2 Whole Effluent Toxicity

Chronic WET test measures the effect of wastewater on indicator organisms' growth, reproduction and survival. Effluent toxicity is predicted when the No Observable Effect Concentrations for a test organism is less than the facility's Instream Wastewater Concentration.

Outfall Id: 03
Chronic testing for *Ceriodaphnia dubia* and *Pimephales promelas* was conducted from April 21, 2015 thru April 28, 2015.

The toxicity test results did not indicate chronic toxicity the water flea or fathead minnow for sample concentrations tested below the requirements of the permit, when statistically compared to the laboratory control. For the samples tested, the NOEC was 100% effluent for both water flea survival and water flea production. The NOEC for fathead minnow survival and growth was 100% as well. No toxic effects were detected.

4.3 Applicable Water Quality and Technology Based Effluent Limitations

Water Quality Based Effluent Limits (WQBELs)

When drafting a National Pollutant Discharge Elimination System (NPDES) permit, a permit writer must consider the impact of the proposed discharge on the quality of the receiving water. Water quality goals for a waterbody are defined by state water quality standards. By analyzing the effect of a discharge on the receiving water, a permit writer could find that technology-based effluent limitations (TBELs) alone will not achieve the applicable water quality standards. In such cases, the Clean Water Act (CWA) and its implementing regulations require development of water quality-based effluent limitations (WQBELs). WQBELs help meet the CWA objective of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters and the goal of water quality that provides for the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water (*fishable/swimmable*).

WQBELs are designed to protect water quality by ensuring that water quality standards are met in the receiving water and downstream uses are protected. On the basis of the requirements of Title 40 of the *Code of Federal Regulations* (CFR) 125.3(a), additional or more stringent effluent limitations and conditions, such as WQBELs, are imposed when TBELs are not sufficient to protect water quality.

The term *pollutant* is defined in CWA section 502(6) and § 122.2. Pollutants are grouped into three categories under the NPDES program: conventional, toxic, and nonconventional. Conventional pollutants are those defined in CWA section 304(a)(4) and § 401.16 (BOD5, TSS, fecal coliform, pH, and oil and grease). Toxic (priority) pollutants are those defined in CWA section 307(a)(1) and include 126 metals and manmade organic compounds. Nonconventional pollutants are those that do not fall under either of the above categories (conventional or toxic pollutants) and include parameters such as chlorine, ammonia, nitrogen, phosphorus, chemical oxygen demand (COD), and whole effluent toxicity (WET).

Applicable Technology Based Effluent Limits (TBELs)

Technology-based effluent limitations aim to prevent pollution by requiring a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the United States. TBELs are developed independently of the potential impact of a discharge on the receiving water, which is addressed through water quality standards and water quality-based effluent limitations. The NPDES regulations at Title 40 of the Code of Federal Regulations 125.3(a) require NPDES permit writers to develop technology-based treatment requirements, consistent with CWA section 301(b), that represent the minimum level of control that must be imposed in a permit. The regulation also indicates that permit writers must include in permits additional or more stringent effluent limitations and conditions, including those necessary to protect water quality.

For pollutants not specifically regulated by Federal Effluent Limit Guidelines, the permit writer must identify any needed technology-based effluent limitations and utilize best professional judgment to establish technology-based limits or determine other appropriate means to control its discharge if there is a reasonable potential to cause or contribute to a violation of the water quality standards.

4.4 Conventional Pollutants

Pollutants of Concern	Outfall Number	Basis
pH	03, 04, 05, and 06	WQBEL The instream waste concentration cannot be calculated conventionally as the receiving waterbody is a lake. A dilution factor of 1:156 (0.64%) was used for the facility. There is no reasonable potential to cause or contribute to a violation of instream Georgia Water Quality Standards; therefore a limit of 6.0 s.u. to 9.0 s.u. has been added.
		TBEL The pH effluent limit of 6.0 s.u. – 9.0 s.u. is required under 40 CFR 423.12(b)(1) Best Practicable Control Technology Currently Available (BPT).
Total Suspended Solids (TSS)	03, 04, 05, and 06	WQBEL GA does not have a numeric Total Suspended Solids Water Quality Standard.
		TBEL The average daily and maximum daily limits for TSS of 30/100 mg/L are based on 40 CFR 423.12(b) best practicable control technology currently available (BPT).
Oil & Grease	03, 04, 05, and 06	WQBEL GA has a narrative Water Quality Standard for oil & grease.
		TBEL The daily average and daily maximum limits for oil & grease of 15/20 mg/L are based on 40 CFR 423.12(b) Best Practicable Control Technology Currently Available (BPT).

4.5 Toxics & Manmade Organic Compounds (126 Priority Pollutants and Metals)

Pollutants of Concern	Outfall Number	Basis
Arsenic, Total	03, 04, 05, and 06	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for arsenic.
		TBEL There is no applicable federal technology based effluent limit.

Cadmium, Total	03, 04, 05, and 06	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for cadmium.
		TBEL There is no applicable federal technology based effluent limit.
Chromium, Total	03, 04, 05, and 06	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for chromium.
		TBEL There is no applicable federal technology based effluent limit.
Copper, Total	03, 04, 05, and 06	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for copper.
		TBEL There is no applicable federal technology based effluent limit.
Lead, Total	03, 04, 05, and 06	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for lead.
		TBEL There is no applicable federal technology based effluent limit.
Mercury	03, 04, 05, and 06	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for mercury.
		TBEL There is no applicable federal technology based effluent limit.
Nickel, Total	03, 04, 05, and 06	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for nickel.
		TBEL There is no applicable federal technology based effluent limit.

Zinc, Total	03, 04, 05, and 06	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for zinc.
		TBEL There is no applicable federal technology based effluent limit.
Selenium	03, 04, 05, and 06	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for selenium.
		TBEL There is no applicable federal technology based effluent limit.

4.6.a Metals

See the reasonable potential (RP) spreadsheet calculations tables for applicable metals in Appendix D of this Fact Sheet.

4.7 Comparison & Summary of Water Quality vs. Technology Based Effluent Limits

After preparing and evaluating applicable technology-based effluent limitations and water quality-based effluent limitations, the most stringent limits are applied in the permit. Pollutants of concern with an effluent limit of monitor and report are not included in the below table.

Outfall Nos. 03, 04, 05, & 06

Parameter	WQBELs	TBELs	Explanation
pH (s.u.)	6.0 – 9.0	6.0 – 9.0	TBEL-BAT (BPT)
TSS (mg/L)	None	30/100	TBEL-BAT (BPT)
Oil & Grease (mg/L)	GA Narrative WQS	15/20	TBEL-BAT (BPT)

5.0 Other Permit Requirements and Considerations

5.1 Permit Conditions

a. The following language is an excerpt out of the Preamble to the 40 CFR Part 423, regarding legacy wastewater.

"Legacy Wastewater

"For purposes of the BAT limitations in this rule, this preamble uses the term "legacy wastewater" to refer to FGD wastewater, fly ash transport water, bottom ash transport water, FGMC wastewater, or gasification wastewater generated prior to the date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023 (see Section VIII.C.7). Under this rule, legacy wastewater must comply with specific BAT limitations, which EPA is setting equal to the previously promulgated BPT limitations on TSS in the discharge of fly ash transport water, bottom ash transport water, and low volume waste sources.

EPA did not establish zero discharge BAT limitations for legacy wastewater because technologies that can achieve zero discharge (such as the ones on which the final BAT requirements discussed in Sections VIII.C.2, 3, and 4, above, are based) are not shown to be available for legacy wastewater. Legacy wastewater already exists in wet form, and thus dry handling could not be used eliminate its discharge. Furthermore, EPA lacks data to show that legacy wastewater could be reliably incorporated into a closed-loop process that eliminates discharges, given the variation in operating practices among surface impoundments containing legacy wastewater.

EPA also decided not to establish BAT limitations for legacy wastewater based on a technology other than surface impoundments (chemical precipitation, chemical precipitation plus biological treatment, evaporation) because it does not have the data to do so. Data are not available because of the way that legacy wastewater is currently handled at plants.

The vast majority of plants combine some of their legacy wastewater with each other and with other wastestreams, including cooling water, coal pile runoff, metal cleaning wastes, and low volume waste sources in surface impoundments.[28] Once combined in surface impoundments, the legacy wastewater no longer has the same characteristics that it did when it was first generated. For example, the addition of cooling water can dilute legacy wastewater to a point where the pollutants are no longer present at treatable levels. Additionally, some wastestreams have significant variations in flow, such as metal cleaning wastes, which are generally infrequently generated, or coal pile runoff, which is generated during precipitation events. Because surface impoundments are typically open, with no cover, they also receive direct precipitation. As a result of all of this, the characteristics of legacy wastewater contained in surface impoundments (flow rate and pollutant concentrations) vary at both any given plant, as well as across plants nationwide. Furthermore, EPA generally would like to have enough performance data at a well-designed, well-operated plant or plants to derive limitations and standards using its well-established and judicially upheld statistical methodology. In this case, except in limited circumstances, plants do not treat the legacy wastewater that they send to an impoundment using anything beyond the surface impoundment itself.[29] Thus, the final

rule establishes BAT limitations for legacy wastewater equal to the previously promulgated BPT limitations on TSS in discharges of fly ash transport water, bottom ash transport water, and low volume waste sources.

Finally, while there are a few plants that discharge from an impoundment containing only legacy FGD wastewater,[30] EPA rejected establishing requirements for such legacy FGD wastewater based on a technology other than surface impoundments. EPA determined that, while it could be possible for plants to treat the legacy FGD wastewater with the same technology used to treat FGD wastewater subject to the BAT limitations described in Section VIII.C.1 (because their characteristics could be similar), establishing requirements based on any technology more advanced than surface impoundments for these legacy "FGD-only" wastewater impoundments could encourage plants to alter their operations prior to the date that the final limitations apply in order to avoid the new requirements. Likely, a plant would begin commingling other process wastewater with their legacy FGD wastewater in the impoundment so that any legacy "FGD-only" wastewater requirements would no longer apply. Alternatively, plants might choose to pump the legacy FGD wastewater out of the impoundment on an accelerated schedule and prior to the date that the final limitations apply. In this case, the more rapid discharge of the wastewater could result in temporary increases in environmental impacts (*e.g.*, exceedances of WQC for acute impacts to aquatic life). EPA wanted to avoid creating such incentives in this rule, and it therefore decided to establish BAT limitations for discharges of legacy FGD wastewater based on the previously promulgated BPT limitations on TSS for low volume waste sources. Finally, EPA notes that, as a result of the zero discharge requirements for discharges of all pollutants in three wastestreams (fly ash transport water, bottom ash transport water, and flue gas mercury control wastewater), this rule provides strong incentives for steam electric power plants to greatly reduce, if not completely eliminate, the disposal and treatment of their major sources of ash-containing wastewater in surface impoundments. As a result, EPA anticipates that overall volumes of legacy wastewater will continue to decrease dramatically over time, as this rule becomes fully implemented..."

"For purposes of the BAT limitations in this rule, legacy wastewater is FGD wastewater, fly ash transport water, bottom ash transport water, FGMC wastewater, and gasification wastewater generated prior to the date established by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023 (see Section VIII.C.7 and Section VIII.C.8).[58] Direct discharges of legacy wastewater are, under this rule, subject to BAT effluent limitations on TSS in such wastewater, which are equal to the existing BPT effluent limitations on TSS in fly ash transport water, bottom ash transport water, and low volume waste sources.[59] See TDD Section 14 for additional information regarding the legacy wastewater BAT limitations and guidance on implementing them into NPDES permits."

b. <u>No Discharge of Polychlorinated Biphenyl Compounds</u>
There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

c. Coal Ash Pond Dewatering

Effective on January 4, 2016, Technology Based Effluent Limits were developed by EPA in 40 CFR Part 423, for the discharges associated with coal ash ponds. This facility is not currently undergoing any activities associated with the dewatering of the coal ash ponds. However, there is a potential for dewatering activities to initiate prior to the end of the permit term. EPD is requiring the permittee to submit a Coal Ash Pond Dewatering Plan (Plan) for review and approval at least 90 days prior to starting any coal ash pond dewatering activities. The timeframe will allow EPD the necessary time to review the Plan, conduct a site visit, if necessary, and address any concerns.

Additionally, the Plan must contain at a minimum the following components

1) Detailed description of the wastewater treatment system components, flow schematics, and appropriate maps of the site;
2) Detailed description of the process controls being installed, measured and maintained;
3) Detailed description of the monitoring devices, equipment and associated activities;
4) At a minimum, twice a month representative effluent sampling and monitoring for the following pollutants of concern: pH (s.u.), total suspended solids, biochemical oxygen demand,$_{5\text{-day}}$, oil and grease, turbidity (NTU), total dissolved solids, copper, total, selenium, total, arsenic, total, mercury, total, chromium, total, lead, total, cadmium, total, zinc, total, nickel, total, ammonia, TKN, organic nitrogen, nitrate/nitrite, phosphorus, ortho-phosphorus, and hardness;
5) At a minimum, once a month upstream and downstream stream representative sampling for the pollutants of concern listed above;
6) Description of the sufficiently sensitive analytical methods; and
7) Description of data collection, record keeping and reporting to EPD. EPD will evaluate the submitted data and determine if there is a reasonable potential for the discharge to cause or contribute to a violation of the instream water quality standards and if necessary, may open the permit to include applicable effluent limits to protect the receiving water body.

d. Coal Ash Pond Impoundment Integrity

Part III.E of the permit requires inspections, record keeping and reporting and corrective measures to ensure the integrity of the coal ash pond impoundments.

5.2 Anti-Backsliding

The limits in this permit are in compliance with the 40 C.F.R. 122.44(l), which requires a reissued permit to be as stringent as the previous permit.

6.0 REPORTING

The facility has been assigned to the following EPD office for reporting, compliance and enforcement.

Georgia Environmental Protection Division
Watershed Compliance Program
2 Martin Luther King Jr. Drive
Suite 1152 East
Atlanta, Georgia 30334

6.1 E-Reporting

The permittee is required to electronically submit documents in accordance with 40 CFR Part 127.

7.0 REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

Not applicable

8.0 PERMIT EXPIRATION

The permit will expire five years from the effective date.

9.0 PROCEDURES FOR THE FORMULATION OF FINAL DETERMINATIONS

9.1 Comment Period

The Georgia Environmental Protection Division (EPD) proposes to issue a permit to this applicant subject to the effluent limitations and special conditions outlined above. These determinations are tentative.

Georgia Environmental Protection Division
Wastewater Regulatory Program
2 Martin Luther King Jr. Drive
Suite 1152 East
Atlanta, Georgia 30334

The permit application, draft permit, and other information are available for review at 2 Martin Luther King Jr. Drive, Suite 1152 East, Atlanta, Georgia 30334, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday. For additional information, you can contact 404-463-1511.

9.2 Public Comments

Persons wishing to comment upon or object to the proposed determinations are invited to submit same in writing to the EPD address above, or via e-mail at *EPDcomments@dnr.ga.gov* within 30 days of the initiation of the public comment period. All comments received prior to that date will be considered in the formulation of final determinations regarding the application. The permit number should be placed on the top of the first page of comments to ensure that your comments will be forwarded to the appropriate staff.

9.3 Public Hearing

Any applicant, affected state or interstate agency, the Regional Administrator of the U.S. Environmental Protection Agency (EPA) or any other interested agency, person or group of persons may request a public hearing with respect to an NPDES permit application if such request is filed within thirty (30) days following the date of the public notice for such application. Such request must indicate the interest of the party filing the request, the reasons why a hearing is requested, and those specific portions of the application or other NPDES form or information to be considered at the public hearing.

The Director shall hold a hearing if he determines that there is sufficient public interest in holding such a hearing. If a public hearing is held, notice of same shall be provided at least thirty (30) days in advance of the hearing date.

In the event that a public hearing is held, both oral and written comments will be accepted; however, for the accuracy of the record, written comments are encouraged. The Director or a designee reserves the right to fix reasonable limits on the time allowed for oral statements and such other procedural requirements, as deemed appropriate.

Following a public hearing, the Director, unless it is decided to deny the permit, may make such modifications in the terms and conditions of the proposed permit as may be appropriate and shall issue the permit.

If no public hearing is held, and, after review of the written comments received, the Director determines that a permit should be issued and that the determinations as set forth in the proposed permit are substantially unchanged, the permit will be issued and will become final in the absence of a request for a contested hearing. Notice of issuance or denial will be made available to all interested persons and those persons that submitted written comments to the Director on the proposed permit.

If no public hearing is held, but the Director determines, after a review of the written comments received, that a permit should be issued but that substantial changes in the proposed permit are warranted, public notice of the revised determinations will be given and written comments accepted in the same manner as the initial notice of application was given and written comments accepted pursuant to EPD Rules, Water Quality Control, subparagraph 391-3-6-.06(7)(b). The Director shall provide an opportunity for public hearing on the revised determinations. Such opportunity for public hearing and the issuance or denial of a permit thereafter shall be in accordance with the procedures as are set forth above.

9.4 Final Determination

At the time that any final permit decision is made, the Director shall issue a response to comments. The issued permit and responses to comments can be can be found at the following address:

http://epd.georgia.gov/watershed-protection-branch-permit-and-public-comments-clearinghouse-0

9.5 Contested Hearings

Any person who is aggrieved or adversely affected by the issuance or denial of a permit by the Director of EPD may petition the Director for a hearing if such petition is filed in the office of the Director within thirty (30) days from the date of notice of such permit issuance or denial. Such hearing shall be held in accordance with the EPD Rules, Water Quality Control, subparagraph 391-3-6-.01.

Petitions for a contested hearing must include the following:

1. The name and address of the petitioner;
2. The grounds under which petitioner alleges to be aggrieved or adversely affected by the issuance or denial of a permit;
3. The reason or reasons why petitioner takes issue with the action of the Director;
4. All other matters asserted by petitioner which are relevant to the action in question.

Appendix A – 40 CFR 423 - Stream Electric Power Generating Regulations

§423.10 Applicability.

The provisions of this part apply to discharges resulting from the operation of a generating unit by an establishment whose generation of electricity is the predominant source of revenue or principal reason for operation, and whose generation of electricity results primarily from a process utilizing fossil-type fuel (coal, oil, or gas), fuel derived from fossil fuel (*e.g.*, petroleum coke, synthesis gas), or nuclear fuel in conjunction with a thermal cycle employing the steam water system as the thermodynamic medium. This part applies to discharges associated with both the combustion turbine and steam turbine portions of a combined cycle generating unit.

§423.11 Specialized definitions.

In addition to the definitions set forth in 40 CFR part 401, the following definitions apply to this part:

(a) The term *total residual chlorine* (or total residual oxidants for intake water with bromides) means the value obtained using any of the "chlorine—total residual" methods in Table IB in 40 CFR 136.3(a), or other methods approved by the permitting authority.

(b) The term *low volume waste sources* means, taken collectively as if from one source, wastewater from all sources except those for which specific limitations or standards are otherwise established in this part. Low volume waste sources include, but are not limited to, the following: Wastewaters from ion exchange water treatment systems, water treatment evaporator blowdown, laboratory and sampling streams, boiler blowdown, floor drains, cooling tower basin cleaning wastes, recirculating house service water systems, and wet scrubber air pollution control systems whose primary purpose is particulate removal. Sanitary wastes, air conditioning wastes, and wastewater from carbon capture or sequestration systems are not included in this definition.

(c) The term *chemical metal cleaning waste* means any wastewater resulting from the cleaning of any metal process equipment with chemical compounds, including, but not limited to, boiler tube cleaning.

(d) The term *metal cleaning waste* means any wastewater resulting from cleaning [with or without chemical cleaning compounds] any metal process equipment including, but not limited to, boiler tube cleaning, boiler fireside cleaning, and air preheater cleaning.

(e) The term *fly ash* means the ash that is carried out of the furnace by a gas stream and collected by a capture device such as a mechanical precipitator, electrostatic precipitator, or fabric filter. Economizer ash is included in this definition when it is collected with fly ash. Ash is not included in this definition when it is collected in wet scrubber air pollution control systems whose primary purpose is particulate removal.

(f) The term *bottom ash* means the ash, including boiler slag, which settles in the furnace or is dislodged from furnaee walls. Economizer ash is included in this definition when it is collected with bottom ash.

(g) The term *once through cooling water* means water passed through the main cooling condensers in one or two passes for the purpose of removing waste heat.

(h) The term *recirculated cooling water* means water which is passed through the main condensers for the purpose of removing waste heat, passed through a cooling device for the purpose of removing such heat from the water and then passed again, except for blowdown, through the main condenser.

(i) The term *10 year, 24/hour rainfall event* means a rainfall event with a probable recurrence interval of once in ten years as defined by the National Weather Service in Technical Paper No. 40. *Rainfall Frequency Atlas of the United States,* May 1961 or equivalent regional rainfall probability information developed therefrom.

(j) The term *blowdown* means the minimum discharge of recirculating water for the purpose of discharging materials contained in the water, the further buildup of which would cause concentration in amounts exceeding limits established by best engineering practices.

(k) The term *average concentration* as it relates to chlorine discharge means the average of analyses made over a single period of chlorine release which does not exceed two hours.

(l) The term *free available chlorine* means the value obtained using any of the "chlorine—free available" methods in Table IB in 40 CFR 136.3(a) where the method has the capability of measuring free available chlorine, or other methods approved by the permitting authority.

(m) The term *coal pile runoff* means the rainfall runoff from or through any coal storage pile.

(n) The term flue gas desulfurization (FGD) wastewater means any wastewater generated specifically from the wet flue gas desulfurization scrubber system that comes into contact with the flue gas or the FGD solids, including but not limited to, the blowdown from the FGD scrubber system, overflow or underflow from the solids separation process, FGD solids wash water, and the filtrate from the solids dewatering process. Wastewater generated from cleaning the FGD scrubber, cleaning FGD solids separation equipment, cleaning FGD solids dewatering equipment, or that is collected in floor drains in the FGD process area is not considered FGD wastewater.

(o) The term flue gas mercury control wastewater means any wastewater generated from an air pollution control system installed or operated for the purpose of removing mercury from flue gas. This includes fly ash collection systems when the particulate control system follows sorbent injection or other controls to remove mercury from flue gas. FGD wastewater generated at plants using oxidizing agents to remove mercury in the FGD system and not in a separate FGMC system is not included in this definition.

(p) The term transport water means any wastewater that is used to convey fly ash, bottom ash, or economizer ash from the ash collection or storage equipment, or boiler, and has direct contact with the ash. Transport water does not include low volume, short duration discharges of wastewater from minor leaks (*e.g.*, leaks from valve packing, pipe flanges, or piping) or minor maintenance events (*e.g.*, replacement of valves or pipe sections).

(q) The term gasification wastewater means any wastewater generated at an integrated gasification combined cycle operation from the gasifier or the syngas cleaning, combustion, and cooling processes. Gasification wastewater includes, but is not limited to the following: Sour/grey water; CO_2/steam stripper wastewater; sulfur recovery unit blowdown, and wastewater resulting from slag handling or fly ash handling, particulate removal, halogen removal, or trace organic removal. Air separation unit blowdown, noncontact cooling water, and runoff from fuel and/or byproduct piles are not considered gasification wastewater. Wastewater that is collected intermittently in floor drains in the gasification process area from leaks, spills, and cleaning occurring during normal operation of the gasification operation is not considered gasification wastewater.

(r) The term combustion residual leachate means leachate from landfills or surface impoundments containing combustion residuals. Leachate is composed of liquid, including any suspended or dissolved constituents in the liquid, that has percolated through waste or other materials emplaced in a landfill, or that passes through the surface impoundment's containment structure (*e.g.*, bottom, dikes, berms). Combustion residual leachate includes seepage and/or leakage from a combustion residual landfill or impoundment unit. Combustion residual leachate includes wastewater from landfills and surface impoundments located on non-adjoining property when under the operational control of the permitted facility.

(s) The term oil-fired unit means a generating unit that uses oil as the primary or secondary fuel source and does not use a gasification process or any coal or petroleum coke as a fuel source. This definition does not include units that use oil only for start up or flame-stabilization purposes.

(t) The phrase "as soon as possible" means November 1, 2018, unless the permitting authority establishes a later date, after receiving information from the discharger, which reflects a consideration of the following factors:

(1) Time to expeditiously plan (including to raise capital), design, procure, and install equipment to comply with the requirements of this part.

(2) Changes being made or planned at the plant in response to:

(i) New source performance standards for greenhouse gases from new fossil fuel-fired electric generating units, under sections 111, 301, 302, and 307(d)(1)(C) of the Clean Air Act, as amended, 42 U.S.C. 7411, 7601, 7602, 7607(d)(1)(C);

(ii) Emission guidelines for greenhouse gases from existing fossil fuel-fired electric generating units, under sections 111, 301, 302, and 307(d) of the Clean Air Act, as amended, 42 U.S.C. 7411, 7601, 7602, 7607(d); or

(iii) Regulations that address the disposal of coal combustion residuals as solid waste, under sections 1006(b), 1008(a), 2002(a), 3001, 4004, and 4005(a) of the Solid Waste Disposal Act of 1970, as amended by the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. 6906(b), 6907(a), 6912(a), 6944, and 6945(a).

(3) For FGD wastewater requirements only, an initial commissioning period for the treatment system to optimize the installed equipment.

(4) Other factors as appropriate.

§423.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, utilization of facilities, raw materials, manufacturing processes, non-water quality environmental impacts, control and treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES Permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The phrase "other such factors" appearing above may include significant cost differentials. In no event may a discharger's impact on receiving water quality be considered as a factor under this paragraph.

(b) Any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction by the application of the best practicable control technology currently available (BPT):

(1) The pH of all discharges, except once through cooling water, shall be within the range of 6.0-9.0.

(2) There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

(3) The quantity of pollutants discharged from low volume waste sources shall not exceed the quantity determined by multiplying the flow of low volume waste sources times the concentration lised in the following table:

Pollutant or pollutant property	BPT effluent limitations	
	Maximum for any 1 day (mg/l)	**Average of daily values for 30 consecutive days shall not exceed (mg/l)**
TSS	100.0	30.0
Oil and grease	20.0	15.0

(4) The quantity of pollutants discharged in fly ash and bottom ash transport water shall not exceed the quantity determined by multiplying the flow of fly ash and bottom ash transport water times the concentration listed in the following table:

Pollutant or pollutant property	BPT effluent limitations	
	Maximum for any 1 day (mg/l)	**Average of daily values for 30 consecutive days shall not exceed (mg/l)**
TSS	100.0	30.0
Oil and grease	20.0	15.0

(5) The quantity of pollutants discharged in metal cleaning wastes shall not exceed the quantity determined by multiplying the flow of metal cleaning wastes times the concentration listed in the following table:

Pollutant or pollutant property	BPT effluent limitations	
	Maximum for any 1 day (mg/l)	**Average of daily values for 30 consecutive days shall not exceed (mg/l)**
TSS	100.0	30.0
Oil and grease	20.0	15.0
Copper, total	1.0	1.0
Iron, total	1.0	1.0

(6) The quantity of pollutants discharged in once through cooling water shall not exceed the quantity determined by multiplying the flow of once through cooling water sources times the concentration listed in the following table:

Pollutant or pollutant property	BPT effluent limitations	
	Maximum concentration (mg/l)	Average concentration (mg/l)
Free available chlorine	0.5	0.2

(7) The quantity of pollutants discharged in cooling tower blowdown shall not exceed the quantity determined by multiplying the flow of cooling tower blowdown sources times the concentration listed in the following table:

Pollutant or pollutant property	BPT effluent limitations	
	Maximum concentration (mg/l)	Average concentration (mg/l)
Free available chlorine	0.5	0.2

(8) Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available or total residual chlorine at any one time unless the utility can demonstrate to the Regional Administrator or State, if the State has NPDES permit issuing authority, that the units in a particular location cannot operate at or below this level or chlorination.

(9) Subject to the provisions of paragraph (b)(10) of this section, the following effluent limitations shall apply to the point source discharges of coal pile runoff:

Pollutant or pollutant property	BPT effluent limitations
	Maximum concentration for any time (mg/l)
TSS	50

(10) Any untreated overflow from facilities designed, constructed, and operated to treat the volume of coal pile runoff which is associated with a 10 year, 24 hour rainfall event shall not be subject to the limitations in paragraph (b)(9) of this section.

(11) The quantity of pollutants discharged in FGD wastewater, flue gas mercury control wastewater, combustion residual leachate, or gasification wastewater shall not exceed the quantity determined by multiplying the flow of the applicable wastewater times the concentration listed in the following table:

Pollutant or pollutant property	BPT Effluent limitations	
	Maximum for any 1 day (mg/l)	Average of daily values for 30 consecutive days shall not exceed (mg/l)
TSS	100.0	30.0
Oil and grease	20.0	15.0

(12) At the permitting authority's discretion, the quantity of pollutant allowed to be discharged may be expressed as a concentration limitation instead of the mass-based limitations specified in paragraphs (b)(3) through (b)(7), and (b)(11), of this section. Concentration limitations shall be those concentrations specified in this section.

(13) In the event that wastestreams from various sources are combined for treatment or discharge, the quantity of each pollutant or pollutant property controlled in paragraphs (b)(1) through (b)(12) of this section attributable to each controlled waste source shall not exceed the specified limitations for that waste source.

§423.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this part must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

(a) There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

(b)(1) For any plant with a total rated electric generating capacity of 25 or more megawatts, the quantity of pollutants discharged in once through cooling water from each discharge point shall not exceed the quantity determined by multiplying the flow of once through cooling water from each discharge point times the concentration listed in the following table

Pollutant or pollutant property	BAT Effluent Limitations
	Maximum concentration (mg/l)
Total residual chlorine	0.20

(2) Total residual chlorine may not be discharged from any single generating unit for more than two hours per day unless the discharger demonstrates to the permitting authority that discharge for more than two hours is required for macroinvertebrate control. Simultaneous multi-unit chlorination is permitted.

(c)(1) For any plant with a total rated generating capacity of less than 25 megawatts, the quantity of pollutants discharged in once through cooling water shall not exceed the quantity determined by multiplying the flow of once through cooling water sources times the concentration listed in the following table:

	BAT effluent limitations	
Pollutant or pollutant property	**Maximum concentration (mg/l)**	**Average concentration (mg/l)**
Free available chlorine	0.5	0.2

(2) Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available or total residual chlorine at any one time unless the utility can demonstrate to the Regional Administrator or State, if the State has NPDES permit issuing authority, that the units in a particular location cannot operate at or below this level of chlorination.

(d)(1) The quantity of pollutants discharged in cooling tower blowdown shall not exceed the quantity determined by multiplying the flow of cooling tower blowdown times the concentration listed below:

	BAT effluent limitations	
Pollutant or pollutant property	**Maximum concentration (mg/l)**	**Average concentration (mg/l)**
Free available chlorine	0.5	0.2
Pollutant or pollutant property	**Maximum for any 1 day –(mg/l)**	**Average of daily values for 30 consecutive days shall not exceed = (mg/l)**
The 126 priority pollutants (Appendix A) contained in chemicals added for cooling tower maintenance, except:	([1])	([1])
Chromium, total	0.2	0.2
Zinc, total	1.0	1.0

[1]No detectable amount.

(2) Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available or total residual chlorine at any one time unless the utility can demonstrate to the Regional Administrator or State, if the State has NPDES permit issuing authority, that the units in a particular location cannot operate at or below this level of chlorination.

(3) At the permitting authority's discretion, instead of the monitoring specified in 40 CFR 122.11(b) compliance with the limitations for the 126 priority pollutants in paragraph (d)(1) of this section may be determined by engineering calculations which demonstrate that the regulated pollutants are not detectable in the final discharge by the analytical methods in 40 CFR part 136.

(e) The quantity of pollutants discharged in chemical metal cleaning wastes shall not exceed the quantity determined by multiplying the flow of chemical metal cleaning wastes times the concentration listed in the following table:

	BAT effluent limitations	
Pollutant or pollutant property	**Maximum for any 1 day (mg/l)**	**Average of daily values for 30 consecutive days shall not exceed –(mg/l)**
Copper, total	1.0	1.0
Iron, total	1.0	1.0

(f) [Reserved—Nonchemical Metal Cleaning Wastes].

(g)(1)(i) *FGD wastewater.* Except for those discharges to which paragraph (g)(2) or (g)(3) of this section applies, the quantity of pollutants in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the concentration listed in the table following this paragraph (g)(1)(i). Dischargers must meet the effluent limitations for FGD wastewater in this paragraph by a date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023. These effluent limitations apply to the discharge of FGD wastewater generated on and after the date determined by the permitting authority for meeting the effluent limitations, as specified in this paragraph.

	BAT Effluent limitations	
Pollutant or pollutant property	**Maximum for any 1 day**	**Average of daily values for 30 consecutive days shall not exceed**
Arsenic, total (ug/L)	11	8
Mercury, total (ng/L)	788	356
Selenium, total (ug/L)	23	12
Nitrate/nitrite as N (mg/L)	17.0	4.4

(ii) For FGD wastewater generated before the date determined by the permitting authority, as specified in paragraph (g)(1)(i), the quantity of pollutants discharged in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the concentration listed for TSS in §423.12(b)(11).

(2) For any electric generating unit with a total nameplate capacity of less than or equal to 50 megawatts or that is an oil-fired unit, the quantity of pollutants discharged in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the concentration listed for TSS in §423.12(b)(11).

(3)(i) For dischargers who voluntarily choose to meet the effluent limitations for FGD wastewater in this paragraph, the quantity of pollutants in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the concentration listed in the table following this paragraph (g)(3)(i). Dischargers who choose to meet the effluent limitations for FGD wastewater in this paragraph must meet such limitations by December 31, 2023. These effluent limitations apply to the discharge of FGD wastewater generated on and after December 31, 2023.

	BAT Effluent limitations	
Pollutant or pollutant property	**Maximum for any 1 day**	**Average of daily values for 30 consecutive days shall not exceed**
Arsenic, total (ug/L)	4	
Mercury, total (ng/L)	39	24
Selenium, total (ug/L)	5	
TDS (mg/L)	50	24

(ii) For discharges of FGD wastewater generated before December 31, 2023, the quantity of pollutants discharged in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the concentration listed for TSS in §423.12(b)(11).

(h)(1)(i) *Fly ash transport water.* Except for those discharges to which paragraph (h)(2) of this section applies, or when the fly ash transport water is used in the FGD scrubber, there shall be no discharge of pollutants in fly ash transport water. Dischargers must meet the discharge limitation in this paragraph by a date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023. This limitation applies to the discharge of fly ash transport water generated on and after the date determined by the permitting authority for meeting the discharge limitation, as specified in this paragraph. Whenever fly ash transport water is used in any other plant process or is sent to a treatment system at the plant (except when it is used in the FGD scrubber), the resulting effluent must comply with the discharge limitation in this paragraph. When the fly ash transport water is used in the FGD scrubber, the quantity of pollutants in fly ash transport water shall not exceed the quantity determined by multiplying the flow of fly ash transport water times the concentration listed in the table in paragraph (g)(1)(i) of this section.

(ii) For discharges of fly ash transport water generated before the date determined by the permitting authority, as specified in paragraph (h)(1)(i) of this section, the quantity of pollutants discharged in fly ash transport water shall not exceed the quantity determined by multiplying the flow of fly ash transport water times the concentration listed for TSS in §423.12(b)(4).

(2) For any electric generating unit with a total nameplate generating capacity of less than or equal to 50 megawatts or that is an oil-fired unit, the quantity of pollutants discharged in fly ash transport water shall not exceed the quantity determined by multiplying the flow of fly ash transport water times the concentration listed for TSS in §423.12(b)(4).

(i)(1)(i) *Flue gas mercury control wastewater.* Except for those discharges to which paragraph (i)(2) of this section applies, there shall be no discharge of pollutants in flue gas mercury control wastewater. Dischargers must meet the discharge limitation in this paragraph by a date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023. This limitation applies to the discharge of flue gas mercury control wastewater generated on and after the date determined by the permitting authority for meeting the discharge limitation, as specified in this paragraph. Whenever flue gas mercury control wastewater is used in any other plant process or is sent to a treatment system at the plant, the resulting effluent must comply with the discharge limitation in this paragraph.

(ii) For discharges of flue gas mercury control wastewater generated before the date determined by the permitting authority, as specified in paragraph (i)(1)(i) of this section, the quantity of pollutants discharged in flue gas mercury control wastewater shall not exceed the quantity determined by multiplying the flow of flue gas mercury control wastewater times the concentration for TSS listed in §423.12(b)(11).

(2) For any electric generating unit with a total nameplate generating capacity of less than or equal to 50 megawatts or that is an oil-fired unit, the quantity of pollutants discharged in flue gas mercury control wastewater shall not exceed the quantity determined by multiplying the flow of flue gas mercury control wastewater times the concentration for TSS listed in §423.12(b)(11).

(j)(1)(i) *Gasification wastewater.* Except for those discharges to which paragraph (j)(2) of this section applies, the quantity of pollutants in gasification wastewater shall not exceed the quantity determined by multiplying the flow of gasification wastewater times the concentration listed in the table following this paragraph (j)(1)(i). Dischargers must meet the effluent limitations in this

paragraph by a date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023. These effluent limitations apply to the discharge of gasification wastewater generated on and after the date determined by the permitting authority for meeting the effluent limitations, as specified in this paragraph.

	BAT Effluent limitations	
Pollutant or pollutant property	**Maximum for any 1 day**	**Average of daily values for 30 consecutive days shall not exceed**
Arsenic, total (ug/L)	4	
Mercury, total (ng/L)	1.8	1.3
Selenium, total (ug/L)	453	227
Total dissolved solids (mg/L)	38	22

(ii) For discharges of gasification wastewater generated before the date determined by the permitting authority, as specified in paragraph (j)(1)(i) of this section, the quantity of pollutants discharged in gasification wastewater shall not exceed the quantity determined by multiplying the flow of gasification wastewater times the concentration for TSS listed in §423.12(b)(11).

(2) For any electric generating unit with a total nameplate generating capacity of less than or equal to 50 megawatts or that is an oil-fired unit, the quantity of pollutants discharged in gasification wastewater shall not exceed the quantity determined by multiplying the flow of gasification wastewater times the concentration listed for TSS in §423.12(b)(11).

(k)(1)(i) *Bottom ash transport water.* Except for those discharges to which paragraph (k)(2) of this section applies, or when the bottom ash transport water is used in the FGD scrubber, there shall be no discharge of pollutants in bottom ash transport water. Dischargers must meet the discharge limitation in this paragraph by a date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023. This limitation applies to the discharge of bottom ash transport water generated on and after the date determined by the permitting authority for meeting the discharge limitation, as specified in this paragraph. Whenever bottom ash transport water is used in any other plant process or is sent to a treatment system at the plant (except when it is used in the FGD scrubber), the resulting effluent must comply with the discharge limitation in this paragraph. When the bottom ash transport water is used in the FGD scrubber, the quantity of pollutants in bottom ash transport water shall not exceed the quantity determined by multiplying the flow of bottom ash transport water times the concentration listed in the table in paragraph (g)(1)(i) of this section.

(ii) For discharges of bottom ash transport water generated before the date determined by the permitting authority, as specified in paragraph (k)(1)(i) of this section, the quantity of pollutants discharged in bottom ash transport water shall not exceed the quantity determined by multiplying the flow of bottom ash transport water times the concentration for TSS listed in §423.12(b)(4).

(2) For any electric generating unit with a total nameplate generating capacity of less than or equal to 50 megawatts or that is an oil-fired unit, the quantity of pollutants discharged in bottom ash transport water shall not exceed the quantity determined by multiplying the flow of the applicable wastewater times the concentration for TSS listed in §423.12(b)(4).

(l) *Combustion residual leachate.* The quantity of pollutants discharged in combustion residual leachate shall not exceed the quantity determined by multiplying the flow of combustion residual leachate times the concentration for TSS listed in §423.12(b)(11).

(m) At the permitting authority's discretion, the quantity of pollutant allowed to be discharged may be expressed as a concentration limitation instead of any mass based limitations specified in paragraphs (b) through (l) of this section. Concentration limitations shall be those concentrations specified in this section.

(n) In the event that wastestreams from various sources are combined for treatment or discharge, the quantity of each pollutant or pollutant property controlled in paragraphs (a) through (m) of this section attributable to each controlled waste source shall not exceed the specified limitation for that waste source.

(The information collection requirements contained in paragraphs (c)(2) and (d)(2) were approved by the Office of Management and Budget under control number 2040-0040. The information collection requirements contained in paragraph (d)(3) were approved under control number 2040-0033)

Appendix B – Water Quality Waste Load Allocation

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Georgia Department of Natural Resources

2 Martin Luther King, Jr. Drive, S.E., Suite 1152 East Tower, Atlanta, Georgia 30334-9000
Chris Clark, Commissioner
F. Allen Barnes, Director
Environmental Protection Division
404/656-4713

#15

March 5, 2010

Mr. Charles H. Huling, P.E.
Vice President, Environmental Affairs
Georgia Power Company
241 Ralph McGill Boulevard, NE
Atlanta, GA 30308-3374

RE: Georgia Power Company - Plant Mitchell
NPDES Permit No. GA0001465

Dear Mr. Huling:

Pursuant to the Georgia Water Quality Control Act, as amended; the Federal Clean Water Act, as amended; and the Rules and Regulations promulgated thereunder, we have issued the attached National Pollutant Discharge Elimination System (NPDES) permit for the specified wastewater treatment facility.

Please be advised that on and after the effective date indicated in the attached NPDES permit, the permittee must comply with all the terms, conditions and limitations of the permit.

Sincerely,

F. Allen Barnes

F. Allen Barnes
Director

FAB/th

Attachment

NPDES PERMIT REVIEW

ROUTING

Log into database by Administrative Staff

(Within 2 days of receipt)

STATE GA

✓ Major
___ Minor Primary
___ Modification
___ Revised permit

NPDES NUMBER: 11465

FACILITY NAME: Ga. Power Co. - Plant Mitchell

DRAFT REC'VD _____ FINAL REC'VD 3/11/2010

ENFORCEMENT coordination needed? Y / N
(If yes, make copy and send to enforcement)

Date sent _____ Date due _____

Give to Permit Reviewer:

Review due date:

Initial Review by Permit Reviewer to determine whether other staff needs to review.

Ensure permit or copy is sent.

(Within 5 days of receipt)

Is permit one of these three types? Y / N
___ CAFO - route to Sam Sampath
___ Pulp & Paper - route to Karrie Jo Shell
___ Power Plant - route to Karrie Jo Shell

Date sent _____ Date due _____

TMDL review needed? Y / N Date sent _____ Date due _____
(To TMDL coordinator)

New or expanded with DO, BOD, CBOD WLA? Y / N
(To Virginia Buff) Date sent _____ Date due _____

Is this on the 303(d) list? Y / N List pollutant(s) of concern: _____

WET review needed? Y / N If yes, complete & attach WET Permitting Checklist

Permit Reviewer: complete Permit Review Check Sheet and prepare as needed: okay, comments, objections (discuss with supervisor as needed). Place all documentation in file and log into database.

PERMIT NO. GA0001465

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), hereinafter called the "State Act;" the Federal Water Pollution Control Act, as amended (33 U.S. C. 1251 et seq.), hereinafter called the "Federal Act;" and the Rules and Regulations promulgated pursuant to each of these Acts,

Georgia Power Company
241 Ralph McGill Boulevard, N.E.
Atlanta, Georgia 30308

is authorized to discharge from a facility located at

Georgia Power Company (SIC Code 4911)
Plant Mitchell
5200 Radium Springs Road
Albany, Dougherty County, Georgia 31705

to receiving waters

Flint River (Flint River Basin)

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II and III hereof.

This permit shall become effective on March 5, 2010.

This permit and the authorization to discharge shall expire at midnight, February 28, 2015.

Signed this 5th day of March, 2010.

Director,
Environmental Protection Division

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through xxxxxxxxxxx, the permittee is authorized to discharge from outfall(s) serial number(s) 01 – Final Plant Discharge – Storm Water: Combined discharge of outfalls 01A, 01B, 01C, 01D, 01F, and 01G.

Such discharges shall be limited and monitored by the permittee as specified below when the power plant is fired with fossil fuel:

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored twice per month by a grab sample at outfall 01, the final plant discharge.

Monitoring of outfall 01 is required only when a discharge is occurring.

2. During the period beginning on the effective date and lasting through xxxxxxxxxxx, the permittee is authorized to discharge from outfall(s) serial number(s) 01 – Final Plant Discharge – Storm Water: Combined discharge of outfalls 01A, 01B, 01C, 01D, 01F, and 01G.

Such discharges shall be limited and monitored by the permittee as specified below when the power plant is fired with biomass fuel:

Effluent Characteristic (Specify Units)	Discharge Limitations				Monitoring Requirements		
	Mass Based (lbs/day)		Concentration Based (mg/l)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	-	-	-	-	*1	*1	Final Effluent
BOD5	-	-	Report	Report	1/Quarter	Grab	Final Effluent
Total Suspended Solids	-	-	Report	Report	1/Quarter	Grab	Final Effluent
NH3-N	-	-	Report	Report	1/Quarter	Grab	Final Effluent
Total Phosphorus	-	-	Report	Report	1/Quarter	Grab	Final Effluent
Oil and Grease	-	-	Report	Report	1/Quarter	Grab	Final Effluent
Dissolved Oxygen	-	-	Report Minimum	-	1/Quarter	Grab	Final Effluent

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored twice per month by a grab sample at outfall 01, the final plant discharge.

*1 See Part III, Special Requirements.

Monitoring of outfall 01 is required only when a discharge is occurring.

3. During the period beginning effective date and lasting through xxxxxxxxxxx, 2014, the permittee is authorized to discharge from outfall(s) serial number(s) 01A - Once Through Condenser Cooling Water.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements		
	Concentration Based, mg/l (unless otherwise specified)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.			
Flow (MGD)	---	---	*4	*4	*4
Total Residual Chlorine (TRC)	---	0.20*4	1 / Week	Multiple Grabs*1	*3
TRC discharge time (minutes/day/unit)	---	120	1 / Week	Multiple Grabs*1	*3
Temperature	---	90 or 5 above Intake temp. *2	1 / Week	Grab	*2

*1 Multiple grab samples are to be collected on 30 minute intervals during periods of TRC discharges attributable to condenser chlorination.

*2 The discharge temperature is the temperature recorded at river mile 89.1 at the downstream limit of the defined mixing zone at a depth of 3 feet or other locations approved by the Division. Temperature will also be monitored at the plant intake. Measurements will be made between the hours of 9:00 a.m. and 3:00 p.m. at all times.

*3 Discharge tunnel prior to mixing with any other discharges.

*4 See Part III, Special Requirements.

Monitoring of 01A shall be applicable only during periods of operation of the facility and during periods of effluent discharge.

4. During the period beginning effective date and lasting through xxxxxxxxxxx, 2014, the permittee is authorized to discharge from outfall(s) serial number(s) 01B – Ash Transport Water Blowdown.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements		
	Concentration Based, mg/l		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.			
Flow (MGD)	---	---	*1	*1	*1
Total Suspended Solids	30	100	2 / Month	Grab	Ash Pond Overflow
Oil and Grease	15	20	2 / Month	Grab	Ash Pond Overflow

*1 See Part III, Special Requirements.

Monitoring of 01B is required only when a discharge is occurring.

5. During the period beginning effective date and lasting through xxxxxxxxxxx, 2014, the permittee is authorized to discharge from outfall(s) serial number(s) 01C, 01D, 01E, 02A, and 04. *

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements		
	Concentration Based, mg/l		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.			
Flow (MGD)	---	---	---	---	---
Total Suspended Solids	30	100	2 / Month	Grab	Outfall
Oil and Grease	15	20	2 / Month	Grab	Outfall

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored twice per month by grab sampling (Outfalls 02A, 04).

* 01C - Building Sump Emergency Bypass - Units 1 and 2

01D - Building Sump Emergency Bypass - Unit 3

01E - Ash Pond No. 1 Emergency Overflow – Storm Water

02A - Low Volume Waste Sump Emergency Overflow – Storm Water

04 - Ash Pond No. 2 Emergency Overflow – Storm Water

Monitoring at any outfall is required only when a discharge is occurring. The sample location shall be at each outfall prior to mixing with any other discharges.

6. During the period beginning effective date and lasting through xxxxxxxxxxx, 2014, the permittee is authorized to discharge from outfall(s) serial number(s) 01F, 01G, 02B, 02C, 06, 07, and 08. *

Such discharges shall be limited as specified below:

* 01F – Unit 3 Once Through Noncontact Service Water Strainer Backwash

01G – Unit 3 Main Turbine Lube Oil Once Through Noncontact Cooling Water

02B - Unit 3 I.D. Fan Bearing Once Through Noncontact Cooling Water - Storm water

02C - Coldwell Overflow - Storm water

06 - Intake Screen Backwash

07 - Intake Structure Sump

08 - Groundwater Tank Overflow - Storm water

These discharges shall remain as described above. If the Director determines that water quality standards are not being met as the result of these discharges and so notifies the permittee in writing, the permittee shall take all reasonable steps to prevent the discharge from causing water quality standards to be exceeded in the receiving water.

7. During the period beginning effective date and lasting through xxxxxxxxxxx, 2014, the permittee is authorized to discharge from outfall(s) serial number(s) 05 – Fuel Pile Runoff Sump Emergency Overflow – Storm Water.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements		
	Concentration Based, mg/l		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.			
Flow (MGD)	---	---	---	---	---
Total Suspended Solids	---	50	2 / Month	Grab	Emergency Overflow

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored twice per month by grab sample.

Note: Limitations and monitoring requirements provided herein shall not be applicable if discharge is directed to ash pond or in the event of a 10-year 24-hour rainfall event.

Monitoring of outfall 05 is required only when a discharge is occurring.

B. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

   a. Monitoring requirements and effluent limitations are effective immediately upon issuance of this permit.

   b. No later than two years after the permittee completes the proposed conversion to biomass fuel and begins discharging from the converted facility's final plant discharge outfall 01, items V and VI of NPDES application Form 2C (EPA Form 3510-2C) must be updated and submitted to the Division. This includes analytical results for all applicable conventional pollutants, other pollutants, metals, cyanide, total phenols, and GC/MS organic pollutants as specified in the Form 2C instructions.

   c. The permittee shall notify EPD in writing once the plant is shut down for biomass conversion and following that begin quarterly construction progress reports. These reports shall be submitted to the Division, postmarked no later than the 21st day of the month following the end of each calendar quarter.

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

Note: EPD as used herein means the Environmental Protection Division of the Department of Natural Resources.

C. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Reporting

Monitoring results obtained during the previous **3** months shall be summarized and reported on an Operation Monitoring Report (Form WQ 1.45). Forms other than Form WQ 1.45 may be used upon approval by EPD. These forms and any other required reports and information shall be completed, signed and certified by a principal executive officer or ranking elected official, or by a duly authorized representative of that person, and submitted to the Division, postmarked no later than the **21st** day of the month following the reporting period. Signed copies of these and all other reports required herein shall be submitted to the following address:

Georgia Environmental Protection Division
Permitting, Compliance and Enforcement Program
4220 International Parkway
Suite 101
Atlanta, Georgia 30354

All instances of noncompliance not reported under Part I. B. and C. and Part II. A. shall be reported at the time the operation monitoring report is submitted.

3. Definitions

a. The "daily average" discharge means the total discharge by weight during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days sampled during the calendar month when the measurements were made.

b. The "daily maximum" discharge means the total discharge by weight during any calendar day.

c. The "daily average" concentration means the arithmetic average of all the daily determinations of concentrations made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample.

d. The "daily maximum" concentration means the daily determination of concentration for any calendar day.

e. For the purpose of this permit, a calendar day is defined as any consecutive 24-hour period.

f. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

g. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

4. Test Procedures

Monitoring must be conducted according to test procedures approved pursuant to 40 CFR Part 136 unless other test procedures have been specified in this permit.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The exact place, date, and time of sampling or measurements, and the person(s) performing the sampling or the measurements;

b. The dates the analyses were performed, and the person(s) who performed the analyses;

c. The analytical techniques or methods used; and

d. The results of all required analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Operation Monitoring Report Form (WQ 1.45). Such increased monitoring frequency shall also be indicated. The Division may require by written notification more frequent monitoring or the monitoring of other pollutants not required in this permit.

7. Records Retention

The permittee shall retain records of all monitoring information, including all records of analyses performed, calibration and maintenance of instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Division at any time.

8. Penalties

The Federal Clean Water Act and the Georgia Water Quality Control Act provide that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine or by imprisonment, or by both. The Federal Clean Water Act and the Georgia Water Quality Control Act also provide procedures for imposing civil penalties which may be levied for violations of the Act, any permit condition or limitation established pursuant to the Act, or negligently or intentionally failing or refusing to comply with any final or emergency order of the Director of the Division.

A. MANAGEMENT REQUIREMENTS

1. Change in Discharge

a. Advance notice to the Division shall be given of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. Any anticipated facility expansions, production increases, or process modifications must be reported by submission of a new NPDES permit application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the Division of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

b. All existing manufacturing, commercial, mining, and silviculture dischargers shall notify the Division as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (i) 100 μg/l, (ii) five times the maximum concentration reported for that pollutant in the permit application, or (iii) 200 μg/l for acrolein and acrylonitrile, 500 μg/l for 2,4 dinitrophenol and for 2-methyl-4-6-dinitrophenol, or 1 mg/l antimony.

c. All existing manufacturing, commercial, mining, and silvicultural dischargers shall notify the Division as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in any discharge on a nonroutine or infrequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (i) 500 μg/l, (ii) ten times the maximum concentration reported for that pollutant in the permit application, or (iii) 1 mg/l antimony.

2. Noncompliance Notification

If, for any reason, the permittee does not comply with, or will be unable to comply with any effluent limitation specified in this permit, the permittee shall provide the Division with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

a. A description of the discharge and cause of noncompliance; and

b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

3. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypassing

a. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Division at least 10 days (if possible) before the date of the bypass. The permittee shall submit notice of any unanticipated bypass with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

1. A description of the discharge and cause of noncompliance; and

2. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

b. Any diversion or bypass of facilities covered by this permit is prohibited, except (i) where unavoidable to prevent loss of life, personal injury, or severe property damage; (ii) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if the permittee could have installed adequate back-up equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and (iii) the permittee submitted a notice as required above. The permittee shall operate the treatment works, including the treatment plant and total sewer system, to minimize discharge of the pollutants listed in Part I of this permit from combined sewer overflows or bypasses. Upon written notification by the Division, the permittee may be required to submit a plan and schedule for reducing bypasses, overflows, and infiltration in the system.

6. Sludge Disposal Requirements

Hazardous sludge shall be disposed of in accordance with the regulations and guidelines established by the Division pursuant to the Federal Clean Water Act (CWA) and the Resource Conservation and Recovery Act (RCRA). For land application of nonhazardous sludge, the permittee shall comply with any applicable criteria outlined in the Division's "Guidelines for Land Application of Municipal Sludges." Prior to disposal of sludge by land application, the permittee shall submit a proposal to the Division for approval in accordance with applicable criteria in the Division's "Guidelines for Land Application of Municipal Sludges." Upon evaluation of the permittee's proposal, the Division may require that more stringent control of this activity is required. Upon written notification, the permittee shall submit to the Division for approval, a detailed plan of operation for land application of sludge. Upon approval, the plan will become a part of the NPDES permit. Disposal of nonhazardous sludge by other means, such as landfilling, must be approved by the Division.

7. Sludge Monitoring Requirements

The permittee shall develop and implement procedures to insure adequate year-round sludge disposal. The permittee shall monitor the volume and concentration of solids removed from the plant. Records shall be maintained which document the quantity of solids removed from the plant. The ultimate disposal of solids shall be reported monthly (in the unit of lbs/day) to the Division with the Operation Monitoring Report Forms required under Part I (C)(2) of this permit.

Power Failures

Upon the reduction, loss, or failure of the primary source of power to said water pollution control facilities, the permittee shall use an alternative source of power if available to reduce or otherwise control production and/or all discharges in order to maintain compliance with the effluent limitations and prohibitions of this permit.

If such alternative power source is not in existence, and no date for its implementation appears in Part I, the permittee shall halt, reduce or otherwise control production and/or all discharges from wastewater control facilities upon the reduction, loss, or failure of the primary source of power to said wastewater control facilities.

B RESPONSIBILITIES

Right of Entry

The permittee shall allow the Director of the Division, the Regional Administrator of EPA, and/or their authorized representatives, agents, or employees, upon the presentation of credentials:

a. To enter upon the permittee's premises where a regulated activity or facility is located or conducted or where any records are required to be kept under the terms and conditions of this permit; and

b. At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and to sample any substance or parameters in any location.

Transfer of Ownership or Control

A permit may be transferred to another person by a permittee if:

a. The permittee notifies the Director in writing of the proposed transfer at least thirty (30) days in advance of the proposed transfer;

b. A written agreement containing a specific date for transfer of permit responsibility and coverage between the current and new permittee (including acknowledgement that the existing permittee is liable for violations up to that date, and that the new permittee is liable for violations from that date on) is submitted to the Director at least thirty (30) days in advance of the proposed transfer; and

c. The Director, within thirty (30) days, does not notify the current permittee and the new permittee of the Division's intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

3. Availability of Reports

Except for data deemed to be confidential under O.C.G.A. § 12-5-26 or by the Regional Administrator of the EPA under the Code of Federal Regulations, Title 40, Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at an office of the Division. Effluent data, permit applications, permittee's names and addresses, and permits shall not be considered confidential.

4. Permit Modification

After written notice and opportunity for a hearing, this permit may be modified, suspended, revoked or reissued in whole or in part during its term for cause including, but not limited to, the following:

a. Violation of any conditions of this permit;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge; or

d. To comply with any applicable effluent limitation issued pursuant to the order the United States District Court for the District of Columbia issued on June 8, 1976, in Natural Resources Defense Council, Inc. et.al. v. Russell E. Train, 8 ERC 2120(D.D.C. 1976), if the effluent limitation so issued:

(1) is different in conditions or more stringent than any effluent limitation in the permit; or

(2) controls any pollutant not limited in the permit.

5. Toxic Pollutants

The permittee shall comply with effluent standards or prohibitions established pursuant to Section 307(a) of the Federal Clean Water Act for toxic pollutants, which are present in the discharge within the time provided in the regulations

that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

6. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

7. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Federal Clean Water Act.

8. Water Quality Standards

Nothing in this permit shall be construed to preclude the modification of any condition of this permit when it is determined that the effluent limitations specified herein fail to achieve the applicable State water quality standards.

9. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Expiration of Permit

Permittee shall not discharge after the expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information, forms, and fees as are required by the agency authorized to issue permits no later than 180 days prior to the expiration date.

11. Contested Hearings

Any person who is aggrieved or adversely affected by an action of the Director of the Division shall petition the Director for a hearing within thirty (30) days of notice of such action.

12. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

13. Best Management Practices

The permittee will implement best management practices to control the discharge of hazardous and/or toxic materials from ancillary manufacturing activities. Such activities include, but are not limited to, materials storage areas, in-plant transfer, process and material handling areas; loading and unloading operations; plant site runoff; and sludge and waste disposal areas.

14. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

15. Duty to Provide Information

a. The permittee shall furnish to the Director of the Division, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish upon request copies of records required to be kept by this permit.

b. When the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or any report to the Director, it shall promptly submit such facts and information.

16. Upset Provisions

Provisions of 40 CFR 122.41(n)(1)-(4), regarding "Upset" shall be applicable to any civil, criminal, or administrative proceeding brought to enforce this permit.

A. PREVIOUS PERMITS

1. All previous State water quality permits issued to this facility, whether for construction or operation, are hereby revoked by the issuance of this permit. This action is taken to assure compliance with the Georgia Water Quality Control Act, as amended, and the Federal Clean Water Act, as amended. Receipt of the permit constitutes notice of such action. The conditions, requirements, terms and provisions of this permit authorizing discharge under the National Pollutant Discharge Elimination System govern discharges from this facility.

B. SPECIAL REQUIREMENTS

1. There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

2. Any metal cleaning wastes generated will be contained for further treatment or disposal in a manner to permit compliance at time of discharge (O3D, Chemical Cleaning Wastes) with requirements listed below or disposed of in a manner approved by the Division. This applies to any preoperational chemical cleaning of metal process equipment also. The treatment and disposal procedures shall be discussed in the flow monitoring and characterization submittal.

3. The quantity of pollutants discharged (03D, Chemical Cleaning Wastes) in metal cleaning waste shall not exceed the quantity determined by multiplying the flow of metal cleaning wastes times the concentrations listed below. All effluent characteristics shall be monitored 1/week by grab sampling when a discharge is occurring.

Effluent Characteristic	Discharge Limitation (mg/l)	
	Daily Average	Daily Maximum
Total Suspended Solids	30	100
Oil and Grease	15	20
Copper	1.0	1.0
Iron	1.0	1.0

4. Total residual chlorine (TRC) may not be discharged from any single generating unit for more than two hours per day. Simultaneous multi-unit chlorination is permitted.

5. The TRC maximum is the instantaneous maximum which may occur at any time. Further, the permittee will develop a system for monitoring and recording total time of TRC discharges. The results shall be reported in a suitably concise form.

6. In the event that waste streams for various sources are combined for treatment or discharge, the quantity of each pollutant or pollutant property controlled by this permit shall not exceed the specified limitations for that source.

7. The Director may modify any effluent limitation upon request of the permittee if such limitation is covered by an approved variance or by an amendment to the Federal Clean Water Act.

8. Annually, the permittee shall submit to the Director flow monitoring and characterization information regarding the various waste streams.

9 Summary of requirements from preceding items that are required every year:

   a. Metal cleaning waste treatment and disposal discussion.

   b. Flow monitoring and characterization information regarding various waste streams.

10. If the results for a given sample are such that a parameter is not detected at or above the method detection limit or reporting limit, a value of zero will be reported for that sample and the method detection limit or reporting limit will also be reported. Such sample shall be deemed to be in compliance with the permit limit.

11. Upon approval of the Director, the permittee shall, on a case-by-case basis, be able to utilize alternative analytical methods, conversion factors, methodology, procedures, or new technologies, to ensure that the biomonitoring and toxicity reduction requirements of Part III.C. and the testing/reporting requirements of the permit are adequately addressed.

12. The provisions of 40 CFR 122.41(1)(6)(iii) regarding waiver of the five day written report required by Part II.A.2 and Part II.A.5. of this permit shall be applicable and may be implemented on a case-by-case basis by EPD for noncompliances which are orally reported by the permittee within 24 hours of discovery of the noncompliance condition.

13. The Division recognizes the inherent analytical variability in approved test methods and procedures and further agrees that such issues can be raised by the permittee as a defense in an enforcement action.

14. The permittee is authorized to discharge stormwater from the outfalls identified in Part I., Section A. of this permit provided that these discharges do not cause violations of State water quality standards in the receiving streams.

15. Requirements Applicable to Cooling Water Intake Structures: This permit may be reopened to address compliance with 316(b) requirements upon issuance of a new rule or final guidance by EPA.

C. BIOMONITORING AND TOXICITY REDUCTION REQUIREMENTS

In order to determine whether the permittee is discharging wastes in concentrations or combinations which may have an adverse impact on the State's water quality, the Division can require the permittee to conduct a biomonitoring program.

If toxicity is believed to be present in the permittee's effluent, the Division may require the permittee to develop a biomonitoring screening program according to the following schedule:

1. Within 90 days of Division notification a screening program study plan detailing the test methodology and test organisms shall be submitted for conducting a forty-eight hour static acute test of the final effluent.

   Note: If residual chlorine is present in the final effluent from a treatment and/or disinfection process, a prechlorinated or dechlorinated sample will be tested.

2. Within 90 days of Division approval of the study plan, the permittee shall conduct and submit the results of the forty-eight hour static acute test.

The Division will then review the results of the forty-eight hour static acute test. If the test criteria specified in the study plan are exceeded, then the permittee shall within 90 days of written notification by the Division repeat steps 1. and 2. above replacing the forty-eight hour static acute test with the ninety-six hour test.

The Division will then review the results of the ninety-six hour test. If the criteria* detailed in the ninety-six hour test indicates toxicity, then the permittee shall within 90 days of written notification by the Division submit to the Division a plan to reduce the toxicity of the effluent. Within 270 days of Division approval of this plan, the permittee shall implement the plan and initiate follow-up biomonitoring of the effluent in accordance with the approved toxicity reduction plan. The toxicity reduction plan shall not be complete until the permittee meets the criteria detailed in the ninety-six hour test plan.

If there are substantial composition changes in the permittee's effluent, the permittee may be required to repeat the forty-eight hour static acute test upon notification by the Division. Unless otherwise advised, the permittee shall perform biomonitoring of the effluent as provided in C.1. and 2. above, at a minimum of once every three years upon notification by the Division. On a case specific basis, chronic toxicity testing procedures may be required. Upon approval by the Division, all of the plans will become part of the requirements of this permit.

*The 96 hour criteria shall define toxicity as a greater than 10% mortality of the exposed test organisms in 96 hours or less when the test solution contains volumes of effluent and dilution water proportional to the plant daily average flow and the 7Q10 flow of the receiving stream, as determined using test procedures and methods, and statistical methods for evaluating test results, developed by the permittee and approved by the Division pursuant to this section or revised pursuant to Part III. B. 11. above.

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#16

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Watershed Protection Branch
2 Martin Luther King, Jr. Drive
Suite 1152, East Tower
Atlanta, Georgia 30334
404-463-1511

August 1, 2017

404 463 4934

Ms. Denisse Diaz, Branch Chief
NPDES Permitting and Enforcement Branch
Water Protection Division
U.S. EPA Region IV
The Sam Nunn Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303

RE: Proposed Permit
Georgia Power Company Plant Mitchell
NPDES Permit No. GA0001465
City of Albany, Dougherty County
SIC 4911

Dear Ms. Diaz:

In accordance with the Memorandum of Agreement, we are transmitting one copy of the above-referenced proposed revised NPDES permit, as well as additional supporting documentation.

Sincerely,

Audra Dickson, Manager
Industrial Permitting Unit

Enclosure(s): Fact Sheet and Response to Comments

CC: E-mail to EPA Region 4 mailbox: R4NPDESPermits@epa.gov and Ms. Molly Davis davis.molly@epa.gov

Permit No. GA0001465
Issuance Date:

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

National Pollutant Discharge Elimination System Permit

In accordance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), hereinafter called the State Act; the Federal Water Pollution Control Act, as amended (33 U.S. C. 1251 et seq.), hereinafter called the Federal Act; and the Rules and Regulations promulgated pursuant to each of these Acts,

Georgia Power Company
Plant Mitchell
241 Ralph McGill Boulevard, NE
Atlanta, Georgia 30308

is issued a permit to discharge from a facility located at

5200 Radium Springs Road
Albany, Georgia 31705

to receiving waters

discharges (outfall nos. 01B, 01E, and 04) into the Flint River in the Flint River Basin

in accordance with effluent limitations, monitoring requirements and other conditions set forth in the permit.

This permit is issued in reliance upon the permit application signed on August 28, 2014, any other applications upon which this permit is based, supporting data entered therein or attached thereto, and any subsequent submittal of supporting data.

This permit shall become effective on September 1, 2017.

This permit and the authorization to discharge shall expire at midnight August 31, 2022.

Richard E. Dunn, Director
Environmental Protection Division

PART I

A.1. Effluent Limitations and Monitoring Requirements

During the period specified on the first page of this permit, the permittee is authorized to discharge from outfall number 01B[2] – Ash pond discharge.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements[1]		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	Report	Report	--	--	2/Month	Estimation[3]	Final Effluent
Total Suspended Solids	--	--	30	100	1/Week	Grab	Final Effluent
Oil & Grease	--	--	15	20	1/Week	Grab	Final Effluent

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per week by grab sample.

[1] All the parameters must be monitored if, at a minimum, at the measurement frequency stated above if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.

[2] There shall be no discharge of floating solids, oil, scum or visible foam other than trace amounts.

[3] Best engineering practices or pump capacity and/or run times will be used to estimate the flow, and the specific methodology will be documented and retained on site.

A.2. Effluent Limitations and Monitoring Requirements

During the period specified on the first page of this permit, the permittee is authorized to discharge from outfall numbers 01E[2, 3] and 04[2, 3] – Ash pond #1 emergency overflow comingled with stormwater and ash pond 04 emergency overflow commingled with stormwater.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements[1]		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	Report	Report	--	--	Daily When Discharging[5]	Estimation[4]	Final Effluent
Total Suspended Solids	--	--	30	100	Once/Day When Discharging[5]	Grab	Final Effluent
Oil & Grease	--	--	15	20	Once/Day When Discharging[5]	Grab	Final Effluent
Total Dissolved Solids	--	--	--	Report	Once/Day When Discharging[5]	Grab	Final Effluent
Copper, Total	--	--	--	Report	Once/Day When Discharging[5]	Grab	Final Effluent
Selenium, Total	--	--	--	Report	Once/Day When Discharging[5]	Grab	Final Effluent
Arsenic, Total	--	--	--	Report	Once/Day When Discharging[5]	Grab	Final Effluent
Mercury, Total	--	--	--	Report	Once/Day When Discharging[5]	Grab	Final Effluent
Chromium, Total	--	--	--	Report	Once/Day When Discharging[5]	Grab	Final Effluent
Lead, Total	--	--	--	Report	Once/Day When Discharging[5]	Grab	Final Effluent

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements[1]		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Cadmium, Total	--	--	--	Report	Once/Day When Discharging[5]	Grab	Final Effluent
Zinc, Total	--	--	--	Report	Once/Day When Discharging[5]	Grab	Final Effluent
Nickel, Total	--	--	--	Report	Once/Day When Discharging[5]	Grab	Final Effluent

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per day when discharging[5] by grab sample.

1 All the parameters must be monitored, at a minimum, at the measurement frequency stated above if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.

2 There shall be no discharge of floating solids, oil, scum or visible foam other than trace amounts.

3 Discharges from this outfall shall consist of emergency overflows only. There shall be no discharge from the outfall except when an emergency presents, such as excessive rainfall that meets the 100 year, 24 hour storm water criteria, several continuous or intermittent days of excessive rainfall that may adversely impact the stability of the impoundments or unforeseen catastrophic weather events.

4 Best engineering practices or pump capacity and/or run times will be used to estimate the flow, and the specific methodology will be documented and retained on site.

5 An inability to collect a sample because of adverse weather conditions during a monitoring period will not constitute failure to monitor the upstream or downstream as long as those conditions are immediately (within 24 hours) reported to the EPD Compliance Office. Documentation of an adverse event (with date, time and written description) must be reported with the Discharge Monitoring Report.

B. Monitoring

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. The permittee shall maintain a written sampling plan and schedule onsite.

2. Sampling Period

a. Unless otherwise specified in this permit, quarterly samples shall be taken during the periods January-March, April-June, July-September, and October-December.

b. Unless otherwise specified in this permit, semiannual samples shall be taken during the periods January-June and July-December.

c. Unless otherwise specified in this permit, annual samples shall be taken during the period of January-December.

3. Monitoring Procedures

Analytical methods, sample containers, sample preservation techniques, and sample holding times must be consistent with the techniques and methods listed in 40 CFR Part 136. The analytical method used shall be sufficiently sensitive. EPA-approved methods must be applicable to the concentration ranges of the NPDES permit samples.

4. Detection Limits

All parameters will be analyzed using the appropriate detection limits. If the results for a given sample are such that a parameter is not detected at or above the specified detection limit, a value of "NOT DETECTED" will be reported for that sample and the detection limit will also be reported.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The exact place, date, and time of sampling or measurements, and the person(s) performing the sampling or the measurements;

b. The dates and times the analyses were performed, and the person(s) performing the analyses;

Proposed

c. The analytical techniques or methods used;

d. The results of all required analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report. Such increased monitoring frequency shall also be indicated. EPD may require, by written notification, more frequent monitoring or the monitoring of other pollutants not required in this permit.

7. Records Retention

The permittee shall retain records of all monitoring information, including all records of analyses performed, calibration and maintenance of instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a minimum of three (3) years from the date of the sample, measurement, report or application, or longer if requested by EPD.

8. Penalties

The Federal Clean Water Act and the Georgia Water Quality Control Act provide that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine or by imprisonment, or by both. The Federal Clean Water Act and the Georgia Water Quality Control Act also provide procedures for imposing civil penalties which may be levied for violations of the Act, any permit condition or limitation established pursuant to the Act, or negligently or intentionally failing or refusing to comply with any final or emergency order of the Director of EPD.

C. Definitions

1. The "daily average" mass means the total discharge by mass during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days sampled during the calendar month when the measurements were made.

2. The "daily maximum" mass means the total discharge by mass during any calendar day.

3. The "daily average" concentration means the arithmetic average of all the daily determinations of concentrations made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample.

4. The "daily maximum" concentration means the daily determination of concentration for any calendar day.

5. A "calendar day" is defined as any consecutive 24-hour period.

6. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

7. "Severe property damage" means substantial physical damage to property, damage to treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

8. "EPD" as used herein means the Environmental Protection Division of the Department of Natural Resources.

9. "State Act" as used herein means the Georgia Water Quality Control Act (Official Code of Georgia Annotated; Title 12, Chapter 5, Article 2).

10. "Rules" as used herein means the Georgia Rules and Regulations for Water Quality Control.

11. "Dewatering activity or dewatering activities" means prior to the closure process beginning, ash pond discharges will not cause water levels to drop beyond normal historical operation, hence once the dewatering activity has begun, the water levels may drop below historical operations.

12. "Adverse weather" means adverse conditions are those that are dangerous or create inaccessibility for personnel, such as local flooding, high winds, or electrical storms, or situations that otherwise make sampling impractical.

D. Reporting Requirements

1. The permittee must electronically report the DMR, OMR and additional monitoring data using the web based electronic NetDMR reporting system, unless a waiver is granted by EPD.

a. The permittee must comply with the Federal National Pollutant Discharge Elimination System Electronic Reporting regulations in 40 CFR §127. The permittee must electronically report the DMR, OMR, and additional monitoring data using the web based electronic NetDMR reporting system online at: https://netdmr.epa.gov/netdmr/public/home.htm

b. Monitoring results obtained during the calendar month shall be summarized for each month and reported on the DMR. The results of each sampling event shall be reported on the OMR and submitted as an attachment to the DMR.

c. The permittee shall submit the DMR, OMR and additional monitoring data no later than 11:59 p.m. on the 15th day of the month following the sampling period.

d. All other reports required herein, unless otherwise stated, shall be submitted to the EPD Office listed on the permit issuance letter signed by the Director of EPD.

2. No later than December 21, 2020, the permittee must electronically report the following compliance monitoring data and reports using the online web based electronic system approved by EPD, unless a waiver is granted by EPD:

a. Sewer Overflow/Bypass Event Reports;
b. Noncompliance Notification;
c. Other noncompliance; and
d. Bypass

3. Other Reports

All other reports required in this permit not listed above in Part I.D.2 or unless otherwise stated, shall be submitted to the EPD Office listed on the permit issuance letter signed by the Director of EPD.

4. Other Noncompliance

All instances of noncompliance not reported under Part I.B. and Part II. A. shall be reported to EPD at the time the monitoring report is submitted.

5. Signatory Requirements

All reports, certifications, data or information submitted in compliance with this permit or requested by EPD must be signed and certified as follows:

a. Any State or NPDES Permit Application form submitted to the EPD shall be signed as follows in accordance with the Federal Regulations, 40 C.F.R. 122.22:

1. For a corporation, by a responsible corporate officer. A responsible corporate officer means:

i a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision making functions for the corporation, or

ii. the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or

3. For a municipality, State, Federal, or other public facility, by either a principal executive officer or ranking elected official.

b. All other reports or requests for information required by the permit issuing authority shall be signed by a person designated in (a) above or a duly authorized representative of such person, if:

1. The representative so authorized is responsible for the overall operation of the facility from which the discharge originates, e.g., a plant manager, superintendent or person of equivalent responsibility;

2. The authorization is made in writing by the person designated under (a) above; and

Proposed

3. The written authorization is submitted to the Director.

c. Any changes in written authorization submitted to the permitting authority under (b) above which occur after the issuance of a permit shall be reported to the permitting authority by submitting a copy of a new written authorization which meets the requirements of (b) and (b.1) and (b.2) above.

d. Any person signing any document under (a) or (b) above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

PART II

A. Management Requirements

1. Notification of Changes

a. The permittee shall provide EPD at least 90 days advance notice of any planned physical alterations or additions to the permitted facility that meet the following criteria:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b);

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1); or

3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

b. The permittee shall give at least 90 days advance notice to EPD of any planned changes to the permitted facility or activity which may result in noncompliance with permit requirements.

c. Following the notice in paragraph a. or b. of this condition the permit may be modified. The permittee shall not make any changes, or conduct any activities, requiring notification in paragraph a. or b. of this condition without approval from EPD.

d. The permittee shall provide at least 30 days advance notice to EPD of:

1. any planned expansion or increase in production capacity; or

2. any planned installation of new equipment or modification of existing processes that could increase the quantity of pollutants discharged or result in the discharge of pollutants that were not being discharged prior to the planned change

Proposed

if such change was not identified in the permit application(s) upon which this permit is based and for which notice was not submitted under paragraphs a. or b. of this condition.

e. All existing manufacturing, commercial, mining, and silvicultural dischargers shall notify EPD as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (i) 100 μg/L, (ii) five times the maximum concentration reported for that pollutant in the permit application, or (iii) 200 μg/L for acrolein and acrylonitrile, 500 μg/L for 2,4 dinitrophenol and for 2-methyl-4-6-dinitrophenol, or 1 mg/L antimony.

f. All existing manufacturing, commercial, mining, and silvicultural dischargers shall notify EPD as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in any discharge on a nonroutine or infrequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (i) 500 μg/L, (ii) ten times the maximum concentration reported for that pollutant in the permit application, or (iii) 1 mg/L antimony.

g. Upon the effective date of this permit, the permittee shall submit to EPD an annual certification in June of each year certifying whether or not there has been any change in processes or wastewater characteristics as described in the submitted NPDES permit application that required notification in paragraph a., b., or d. of this condition. The permittee shall also certify annually in June whether the facility has received offsite wastes or wastewater and detail any such occurrences.

2. Noncompliance Notification

If, for any reason, the permittee does not comply with, or will be unable to comply with any effluent limitation specified in this permit, the permittee shall provide EPD with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

a. A description of the discharge and cause of noncompliance; and

b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

3. Facility Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypassing

a. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to EPD at least 10 days (if possible) before the date of the bypass. The permittee shall submit notice of any unanticipated bypass with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

   1. A description of the discharge and cause of noncompliance; and

   2. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

b. Any diversion or bypass of facilities covered by this permit is prohibited, except (i) where unavoidable to prevent loss of life, personal injury, or severe property damage; (ii) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if the permittee could have installed adequate back-up equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and (iii) the permittee submitted a notice as required above.

Proposed

The permittee shall operate the treatment works, including the treatment plant and total sewer system, to minimize discharge of the pollutants listed in Part I of this permit from combined sewer overflows or bypasses. Upon written notification by EPD, the permittee may be required to submit a plan and schedule for reducing bypasses, overflows, and infiltration in the system.

6. Sludge Disposal Requirements

Sludge shall be disposed of in accordance with the regulations and guidelines established by EPD, the Federal Clean Water Act, and the Resource Conservation and Recovery Act (RCRA). Prior to disposal of sludge by any method other than co-disposal in a permitted sanitary landfill, the permittee shall submit a sludge management plan to the Watershed Protection Branch of EPD for written approval. For land application of nonhazardous sludge, the permittee shall comply with the applicable criteria outlined in the most current version of EPD's "Guidelines for Land Application of Sewage Sludge (Biosolids) at Agronomic Rates" and with the State Rules, Chapter 391-3-6-.17. EPD may require more stringent control of this activity. Prior to land applying nonhazardous sludge, the permittee shall submit a sludge management plan to EPD for review and approval. Upon approval, the plan for land application will become a part of the NPDES permit upon modification of the permit.

7. Sludge Monitoring Requirements

The permittee shall develop and implement procedures to ensure adequate year-round sludge disposal. The permittee shall monitor the volume and concentration of solids removed from the plant. Records shall be maintained which document the quantity of solids removed from the plant. The ultimate disposal of solids shall be reported (in the unit of lbs) as specified in Part I.D of this permit.

8. Power Failures

Upon the reduction, loss, or failure of the primary source of power to said water pollution control facilities, the permittee shall use an alternative source of power if available to reduce or otherwise control production and/or all discharges in order to maintain compliance with the effluent limitations and prohibitions of this permit.

If such alternative power source is not in existence, and no date for its implementation appears in Part I, the permittee shall halt, reduce or otherwise control production and/or all discharges from wastewater control facilities upon the reduction, loss, or failure of the primary source of power to said wastewater control facilities.

9. Operator Certification Requirements

The permittee shall ensure that, when required, a certified operator is in charge of the facility in accordance with Georgia State Board of Examiners for Certification of Water and Wastewater Treatment Plant operators And Laboratory Analysts Rule 43-51-6.(b)

10. Laboratory Analyst Certification Requirements

The permittee shall ensure that, when required, the person in responsible charge of the laboratory performing the analyses for determining permit compliance is certified in accordance with the Georgia Certification of Water and Wastewater Treatment Plant operators and Laboratory Analysts Act, as amended, and the Rules promulgated thereunder.

B. Responsibilities

1. Right of Entry

The permittee shall allow the Director of EPD, the Regional Administrator of EPA, and/or their authorized representatives, agents, or employees, upon the presentation of credentials:

a. To enter upon the permittee's premises where a discharge source is located or in which any records are required to be kept under the terms and conditions of this permit; and

b. At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and to sample any substance or parameters in any location.

2. Transfer of Ownership or Control

A permit may be transferred to another person by a permittee if:

a. The permittee notifies the Director of EPD in writing of the proposed transfer at least thirty (30) days in advance of the proposed transfer;

b. A written agreement containing a specific date for transfer of permit responsibility and coverage between the current and new permittee (including acknowledgement that the existing permittee is liable for violations up to that date, and that the new permittee is liable for violations from that date on) is submitted to the Director at least thirty (30) days in advance of the proposed transfer; and

Proposed

c. The Director, within thirty (30) days, does not notify the current permittee and the new permittee of EPD's intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

3. Availability of Reports

Except for data deemed to be confidential under O.C.G.A. § 12-5-26 or by the Regional Administrator of the EPA under the Code of Federal Regulations, Title 40, Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at an office of EPD. Effluent data, permit applications, permittee's names and addresses, and permits shall not be considered confidential.

4. Permit Modification

After written notice and opportunity for a hearing, this permit may be modified, suspended, revoked or reissued in whole or in part during its term for cause including, but not limited to, the following:

a. Violation of any conditions of this permit;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge; or

d. To comply with any applicable effluent limitation issued pursuant to the order of the United States District Court for the District of Columbia issued on June 8, 1976, in Natural Resources Defense Council, Inc. et.al. v. Russell E. Train, 8 ERC 2120(D.D.C. 1976), if the effluent limitation so issued:

1. is different in conditions or more stringent than any effluent limitation in the permit; or

2. controls any pollutant not limited in the permit.

5. Toxic Pollutants

The permittee shall comply with effluent standards or prohibitions established pursuant to Section 307(a) of the Federal Clean Water Act for toxic pollutants, which are present in the discharge within the time provided in the regulations that

establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

6. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

7. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Federal Clean Water Act.

8. Water Quality Standards

Nothing in this permit shall be construed to preclude the modification of any condition of this permit when it is determined that the effluent limitations specified herein fail to achieve the applicable State water quality standards.

9. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Expiration of Permit

The permittee shall not discharge after the expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information, forms, and fees as are required by EPD at least 180 days prior to the expiration date.

11. Contested Hearings

Any person who is aggrieved or adversely affected by an action of the Director of EPD shall petition the Director for a hearing within thirty (30) days of notice of such action.

12. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held

Proposed

invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

13. Best Management Practices

The permittee will implement best management practices to control the discharge of hazardous and/or toxic materials from ancillary manufacturing activities. Such activities include, but are not limited to, materials storage, in-plant transfer, process and material handling, loading and unloading operations, plant site runoff, and sludge and waste disposal.

14. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

15. Duty to Provide Information

a. The permittee shall furnish to the EPD Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish upon request copies of records required to be kept by this permit.

b. When the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or any report to the Director, it shall promptly submit such facts and information.

16. Duty to Comply

a. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Georgia Water Quality Control Act (O.C.G.A. § 12-5-20 et. seq.) and is grounds for enforcement action; for permit termination; revocation and reissuance, or modification; or for denial of a permit renewal application. Any instances of noncompliance must be reported to EPD as specified in Part I. D and Part II.A of this permit.

b. Penalties for violations of permit conditions. The Federal Clean Water Act and the Georgia Water Quality Control Act (O.C.G.A. § 12-5-20 et. seq.) provide that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this

permit, makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine or by imprisonment, or by both. The Georgia Water Quality Control Act (Act) also provides procedures for imposing civil penalties which may be levied for violations of the Act, any permit condition or limitation established pursuant to the Act, or negligently or intentionally failing or refusing to comply with any final or emergency order of the Director.

17. Upset Provisions

Provisions of 40 CFR 122.41(n)(1)-(4), regarding "Upset" shall be applicable to any civil, criminal, or administrative proceeding brought to enforce this permit.

Proposed

PART III

A. Previous Permits

1. All previous State wastewater permits issued to this facility, whether for construction or operation, are hereby revoked by the issuance of this permit. This action is taken to assure compliance with the Georgia Water Quality Control Act, as amended, and the Federal Clean Water Act, as amended. Receipt of the permit constitutes notice of such action. The conditions, requirements, terms and provisions of this permit authorizing discharge under the National Pollutant Discharge Elimination System govern discharges from this facility.

B. Schedule of Compliance

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule: N/A

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

C. Special Conditions

1. <u>No Discharge of Polychlorinated Biphenyl Compounds</u>

   There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

2. <u>Coal Ash Pond Dewatering Plan</u>

   a. The permittee shall provide EPD at least 90 days written advance notice of any coal ash pond dewatering activities and a Coal Ash Pond Dewatering Plan (Plan) for review and approval. The Plan must contain at a minimum the following components:

      i. Detailed description of the dewatering activities, current volume of wastewater in the ponds to be dewatered, wastewater treatment system components, flow schematics, and appropriate maps of the site;

      ii. Detailed description of the process controls being installed, measured and maintained, including the effluent quality targets for total suspended solids, pH (s.u.), total residual chlorine, and turbidity (NTU);

ii. Detailed description of the monitoring devices, equipment and associated activities;

iv. At a minimum, once a week representative effluent sampling and monitoring for the following pollutants of concern: pH (s.u.), total suspended solids, biochemical oxygen demand,$_{5\text{-day}}$, oil and grease, turbidity (NTU), total residual chlorine, total dissolved solids, copper, total, selenium, total, arsenic, total, mercury, total, chromium, total, lead, total, cadmium, total, zinc, total, nickel, total, ammonia, TKN, organic nitrogen, nitrate/nitrite, phosphorus, ortho phosphorus, and hardness;

v. At a minimum, twice a month upstream and downstream stream representative sampling for the pollutants of concern listed above in Part III.C.2.a.iv above;

vi. Description of the sufficiently sensitive analytical methods employed;

vii. Description of data collection, record keeping and reporting to EPD;

viii. Description of draw down rates to ensure the integrity of the ponds; and

ix. An immediate (within 24 hours) Notification Process and general Corrective Measures Plan if any of the following scenarios should occur during the dewatering activities:

1. The continuously monitored effluent quality targets for total suspended solids, pH (s.u.), total residual chlorine, or turbidity (NTU) are not achieved and the automatic return system fails resulting in a discharge of wastewater that did not meet the established effluent quality targets; or

2. There is visible foam other than trace amounts discharged to waters of the State.

EPD will evaluate the submitted data and determine if there is a reasonable potential for the discharge to cause or contribute to a violation of the instream water quality standards and if necessary, may open the permit to include applicable effluent limits to protect the receiving water body.

Proposed

b. Additionally, upon submittal of the Plan, the permittee shall begin instream sampling to establish background conditions. The permittee shall perform representative sampling upstream and downstream of the permitted outfalls twice per month collected by a grab sample. The stream samples will be analyzed for the pollutants of concern listed in Part III.C.2.a.iv and meet the requirements in 40 CFR Part 136.

D. Biomonitoring and Toxicity Reduction Requirements

1. The permittee shall comply with effluent standards or prohibitions established by section 307(a) of the Federal Act and with chapter 391-3-6-.03(5)(c) of the State Rules and may not discharge toxic pollutants in concentrations or combinations that are harmful to humans, animals, or aquatic life.

   If toxicity is suspected in the effluent, EPD may require the permittee to perform any of the following actions:

   a. Acute biomonitoring tests;

   b. Chronic biomonitoring tests;

   c. Stream studies;

   d. Priority pollutant analyses;

   e. Toxicity reduction evaluations (TRE); or

   f. Any other appropriate study.

2. EPD will specify the requirements and methodologies for performing any of these tests or studies. Unless other concentrations are specified by EPD, the critical concentration used to determine toxicity in biomonitoring tests will be the effluent instream wastewater concentration (IWC) based on the representative plant flow of the facility and the critical low flow of the receiving stream (7Q10). The endpoints that will be reported are the effluent concentration that is lethal to 50% of the test organisms (LC50) if the test is for acute toxicity, and the no observed effect concentration (NOEC) of effluent if the test is for chronic toxicity.

   The permittee must eliminate effluent toxicity and supply EPD with data and evidence to confirm toxicity elimination.

E. Coal Ash Pond Impoundment Integrity

Imminent impoundment failure conditions shall be reported **immediately** (within 24 hours) to the designated local entity in the County with responsibility for emergency management and EPD's 24 hour Emergency Response contact.

1. Operation and Maintenance

   a. The following impoundments that are used to hold or treat wastewater and associated waste materials shall be operated and maintained to prevent the discharge of pollutants to waters of the united states, except as authorized under this permit, as follows:

      i. Ash Pond 1
      ii. Ash Pond 2
      iii. Ash Pond A (Ash Pond A is inactive and receives no wastes or wastewater. Any wastewater generating from future dewatering activities at Ash Pond A will be conveyed thru the wastewater treatment system prior to discharge.)

   b. When practicable, piezometers or other appropriate instrumentation shall be installed as a means of assessing impoundment integrity.

   c. Within 90 days of the effective date of this permit, the permittee shall submit a report that identifies and shows the location of all pipes, utilities or other penetrations through or beneath the impoundment(s). A Georgia-registered professional engineer must certify in the report what, if any, pipes, utilities, and penetrations exist and their condition. The report must address these penetrations and provide an inspection frequency and method of evaluation for them.

2. Inspections

   a. Inspections of dams, dikes and toe areas for erosion shall, at a minimum, include observations of:

      I. Cracks or bulges;
      II. Subsidence;
      III. Wet or soft soil;
      IV. Changes in geometry;
      V. Elevation of the impounded water and freeboard, depth of sediment and slurry;
      VI. Changes in vegetation such as being overly lush;
      VII. Obstructive vegetation and trees;
      VIII. Animal burrows;
      IX. Changes to liners (if applicable);
      X. Spillway integrity; and

Proposed

XI. Any other changes which may indicate a potential compromise to impoundment integrity.

b. All impoundments shall be inspected at least **weekly** by qualified personnel with knowledge and training in impoundment integrity.

c. All impoundments shall be inspected annually by a State-registered professional engineer or professional geologist with knowledge and training in impoundment integrity.

d. The findings of each inspection shall be documented in a written inspection report and the personnel conducting the inspection will certify that the inspection occurred.

e. The certified inspection report shall be submitted to EPD annually by June 30th.

3. Corrective Measures

a. For Category I structures or structures regulated under the Safe Dams Act, the permittee shall coordinate with EPD (EPD's Safe Dams Unit, EPD assigned Compliance Office, and EPD's Emergency Response Contact) and the permittee's Engineer of Record **immediately (within 24 hours)** after discovering any changes that may be signs of an imminent impoundment failure, or potentially significant compromise to the structural integrity of the impoundment; such as, but not limited to, significant increases in seepage or seepage carrying sediment, or as the formation of large cracks, slumping, or new wet areas not related to recent precipitation.

b. For structures not regulated by the Safe Dams Act, the permittee shall retain a qualified professional and coordinate with EPD (EPD's Safe Dams Unit, EPD assigned Compliance Office, and EPD's Emergency Response Contact) **immediately (within 24 hours)** after discovering any changes that may be signs of an imminent impoundment failure, or potentially significant compromise to the structural integrity of the impoundment; such as, but not limited to, significant increases in seepage or seepage carrying sediment or the formation of large cracks, slumping, or new wet areas not related to recent precipitation.

c. The permittee shall begin the corrective measures agreed upon by EPD and the permittee **within 60 days** of first observing any other issues which may have long term impacts on the structural integrity of the impoundment, such as trees growing on the impoundment or vegetation blocking spillways, culverts or other drainage pathways.

4. Reporting and Recordkeeping Requirements

   a. **Within 5 days** of discovering conditions that indicate a potentially significant compromise to the structural integrity of the impoundment, the permittee must notify EPD (EPD's Safe Dams Unit and EPD assigned Compliance Office) in writing, describing the findings of the inspection, corrective actions taken, and expected outcomes.

   b. The permittee shall maintain records of all impoundment inspection and maintenance activities, including corrective actions made in response to inspections and all other activities undertaken to repair or maintain the impoundments referenced in this permit. All records shall be retained, and made available to State or Federal inspectors upon request.

   c. The permittee shall submit an **annual report** to EPD by June 30th, summarizing findings of all monitoring activities, inspections and corrective measures pertaining to the structural integrity, operation and maintenance of all impoundments referenced in this permit.

   d. All pertinent impoundment permits, design, construction, operation, and maintenance information, including but not limited to: plans, geotechnical and structural integrity studies, copies of permits, associated documentation of certifications by all qualified personnel, State-registered professional engineers, professional geologists, and regulatory approvals, shall be retained and made available to State or Federal inspectors upon request.

   e. The permittee shall maintain the applicable certification and training records of the personnel that conducted the inspections required under this Section.

5. Once the issuance of the Coal Combustion Residuals (CCR) permit is a final action of the Director and as required under Chapter 391-3-4 Rules for Solid Waste Management, the permittee shall no longer be subject to the requirements specified in Part III.E of this NPDES permit for that Ash Pond or, if collectively, for all the Ash Ponds.

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

The Georgia Environmental Protection Division proposes to issue an NPDES permit to the applicant identified below. The draft permit places conditions on the discharge of pollutants from the power plant to waters of the State.

Technical Contact: Audra Dickson *(audra.dickson@dnr.ga.gov)*
404-463-4934

Draft permit:

- ☐ first issuance
- ☐ reissuance with no or minor modifications from previous permit
- ☒ reissuance with substantial modifications from previous permit
- ☐ modification of existing permit
- ☒ requires EPA review

1.0 FACILITY INFORMATION

1.1 NPDES Permit No.: GA0001465

1.2 Name and Address of Owner/Applicant

Georgia Power Company
Plant Mitchell
241 Ralph McGill Boulevard, NE
Atlanta, Georgia 30308

1.3 Name and Address of Facility

Plant Mitchell
5200 Radium Springs Road
Albany, Georgia 31075
(Dougherty County)

1.4 Location and Description of the discharge (as reported by applicant)

Outfall ID	Latitude	Longitude	Receiving Waterbody
01B	31° 26' 38"	-84° 08' 14"	Flint River
01E	31° 26' 37"	-84° 08' 14"	Flint River
04	31° 26' 08"	-84° 08' 28"	Flint River

1.5 Production Capacity: N/A

1.6 SIC Code & Description: 4911 – Generation of electricity

1.7 Description of Industrial Processes: Plant Mitchell is a steam electric power generating facility that generated electricity through combustion of fossil fuels. The facility became retired in April 2015. The only wastestreams generated and discharged at the site are low volume wastewater, legacy coal ash pond and stormwater.

1.8 Description of the Wastewater Treatment Facility

Outfall	Operation Description	Treatment Description
01B	Ash Pond Discharge	Sedimentation, flocculation, and chemical precipitation
01E	Ash Pond #1 Emergency Overflow comingled with stormwater	Sedimentation
04	Ash Pond #1 Emergency Overflow comingled with stormwater	Sedimentation
01	Deleted - outfall decommissioned	Discharge not authorized
01A	Deleted - outfall decommissioned	Discharge not authorized
01C	Deleted - outfall decommissioned	Discharge not authorized
01D	Deleted - outfall decommissioned	Discharge not authorized
01F	Deleted - outfall decommissioned	Discharge not authorized
01G	Deleted - outfall decommissioned	Discharge not authorized
02A	Deleted - outfall decommissioned	Discharge not authorized
02B	Deleted - outfall decommissioned	Discharge not authorized
02C	Deleted - outfall decommissioned	Discharge not authorized
03D	Deleted - outfall decommissioned	Discharge not authorized
05	Deleted - outfall decommissioned	Discharge not authorized
06	Deleted - outfall decommissioned	Discharge not authorized

07	Deleted - outfall decommissioned	Discharge not authorized
08	Deleted - outfall decommissioned	Discharge not authorized

1.9 Type of Wastewater Discharge

☒ process wastewater ☒ stormwater

☐ domestic wastewater ☐ combined (describe)

☒ other (description) – *Low volume discharges associated with plant decommissioning.*

1.10 Characterization of Effluent Discharge as Reported by Applicant

(Form 2C, Section V, Part A only. Please refer to the application for additional analysis)

1.10.a Outfall No. 01B – Ash Pond Discharge

Effluent Characteristics (as Reported by Applicant)	**Maximum Daily Value**	**Average Daily Value**
Flow (MGD)	4.32	NA
Biochemical Oxygen Demand,$_{5\text{-day}}$ (mg/L)	<2	NA
Total Suspended Solids (mg/L)	5	NA
Temperature, Winter (°C)	20.7	NA
Temperature, Summer (°C)	29.9	NA
Ammonia (mg/L)	0.2	NA
Total Phosphorus (mg/L)	0.04	NA

1.10.b Outfall No. 01E - Ash pond #1 emergency overflow commingled with stormwater

Effluent Characteristics (as Reported by Applicant)	Maximum Daily Value	Average Daily Value
Flow (MGD)	11.52	NA
Biochemical Oxygen Demand,$_{5\text{-day}}$ (mg/L)	<2	NA
Total Suspended Solids (mg/L)	5	NA
Temperature, Winter (°C)	20.7	NA
Temperature, Summer (°C)	29.9	NA
Ammonia (mg/L)/	0.2	NA
Total Phosphorus (mg/L)	0.04	NA

1.10.c Outfall No. 04 - Ash pond #2 emergency overflow commingled with stormwater

Effluent Characteristics (as Reported by Applicant)	Maximum Daily Value	Average Daily Value
Flow (MGD)	33.12	NA
Biochemical Oxygen Demand,$_{5\text{-day}}$ (mg/L)	<2	NA
Total Suspended Solids (mg/L)	5	NA
Temperature, Winter (°C)	20.7	NA
Temperature, Summer (°C)	29.9	NA
Ammonia (mg/L)	0.2	NA
Total Phosphorus (mg/L)	0.04	NA

2.0 APPLICABLE REGULATIONS

2.1 State Regulations

Chapter 391-3-6 of the Georgia Rules and Regulations for Water Quality Control

2.2 Federal Regulations

Source	Activity	Applicable Regulation
Generation of Electricity	Steam Electric Power Generating Point Source Category	40 CFR 122 40 CFR 125 40 CFR 423

2.3 Industrial Effluent Limit Guideline(s)

Code of Federal Regulations, 40 CFR Part 423 – Steam Electric Power Generating Point Source Category

See Appendix A of this Fact Sheet for a copy of the 40 CFR Part 423 – Steam Electric Power Generating Source Category regulations.

3.0 WATER QUALITY STANDARDS & RECEIVING WATERBODY INFORMATION

Section 301(b)(1)(C) of the Clean Water Act (CWA) requires the development of limitations in permits necessary to meet water quality standards. Federal Regulations 40 CFR 122.4(d) require that conditions in NPDES permits ensure compliance with the water quality standards which are composed of use classifications, numeric and or narrative water quality criteria and an anti-degradation policy. The use classification system designates the beneficial uses that each waterbody is expected to achieve, such as drinking water, fishing, or recreation. The numeric and narrative water quality criteria are deemed necessary to support the beneficial use classification for each water body. The antidegradation policy represents an approach to maintain and to protect various levels of water quality and uses.

3.1 Receiving Waterbody Classification and Information

Rules and Regulations of the State of Georgia 391-3-6-.03(6) – Fishing and Recreation

Fishing,

1. Dissolved Oxygen - A daily average of 6.0 mg/L and no less than 5.0 mg/L at all times for water designated as trout streams by the Wildlife Resources Division. A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times for waters supporting warm water species of fish.

2. pH - Within the range of 6.0 to 8.5.

3. Bacteria - For the months of May through October, when water contact recreation activities are expected to occur, fecal coliform not to exceed a geometric mean of 200 per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours. Should water quality and sanitary studies show fecal coliform levels from non-human sources exceed 200/100 mL (geometric mean) occasionally, then the allowable geometric mean fecal coliform shall not exceed 300 per 100 mL in lakes and reservoirs and 500 per 100 ml in free flowing freshwater streams. For the months of November through April, fecal coliform not to exceed a geometric mean of 1,000 per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours and not to exceed a maximum of 4,000 per 100 ml for any sample.

4. Temperature - Not to exceed 90°F. At no time is the temperature of the receiving waters to be increased more than 5°F above intake temperature except that in estuarine waters the increase will not be more than 1.5°F. In stream designated as secondary trout waters, there shall be no elevation exceeding 2°F natural stream temperatures.

5. Toxic Wastes, Other Deleterious Materials - None in concentrations that would harm man, fish, and game or other beneficial aquatic life.

Recreation,

General recreational activities such as water skiing, boating, and swimming, or for any other use requiring water of a lower quality, such as recreational fishing. These criteria are not to be interpreted as encouraging water contact sports in proximity to sewage or industrial waste discharges regardless of treatment requirements:

(i) Bacteria:

1. Coastal waters: Culturable enterococci not to exceed a geometric mean of 35 CFU (colony forming units) per 100 mL. The geometric mean duration shall not be greater than 30 days. There shall be no greater than a ten percent excursion frequency of an enterococci statistical threshold value (STV) of 130 CFU per 100 mL the same 30-day interval.

2. All other recreational waters: Culturable E. coli not to exceed a geometric mean of 126 CFU (colony forming units) per 100 mL. The geometric mean duration shall not be greater than 30 days. There shall be no greater than a ten percent excursion frequency of an E. coli statistical threshold value (STV) of 410 CFU per 100 mL in the same 30-day interval.

(ii) Dissolved Oxygen: A daily average of 6.0 mg/L and no less than 5.0 mg/L at all times for waters designated as trout streams by the Wildlife Resources Division. A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times for waters supporting warm water species of fish.

(iii) pH: Within the range of 6.0 - 8.5.

(iv) Temperature: Not to exceed 90°F. At no time is the temperature of the receiving waters to be increased more than 5°F above intake temperature except that in estuarine waters the increase will not be more than 1.5°F. In streams designated as primary trout or smallmouth bass waters by the Wildlife Resources Division, there shall be no elevation of natural stream temperatures. In streams designated as secondary trout waters, there shall be no elevation exceeding 2°F natural stream temperatures.

3.2 Ambient Information

Outfall ID	7Q10 (cfs)	1Q10 (cfs)	Hardness (mg/L)	Annual Average Flow (cfs)	Upstream Total Suspended Solids (mg/l)
01B	923	722	42	5900	8
01E	923	722	42	5900	8
04	923	722	42	5900	8

3.3 Georgia 305(b)/303(d) List Documents

2014 Integrated 305(b)/303(d) List

Reach Name/ ID #/ Data Source	Reach Location County	River Basin/ Use	Criterion Violated	Potential Causes	Extent		Category	Priority	Notes
Flint River	Spring Creek to Hwy 27	Flint			20	miles	1		
R031200060513	Dooly County	Fishing							
10									

3.4 Total Maximum Daily Load (TMDL)

There are no applicable TMDLs for this facilities discharge.

3.5 Wasteload Allocation Date:

Requested permit information for Reasonable Potential Analysis on February 9, 2017

See Appendix B of this Fact Sheet for the Wasteload Allocation (WLA).

4.0 EFFLUENT LIMITS AND PERMIT CONDITIONS

4.1 Reasonable Potential Analysis (RPA)

Title 40 of the Federal Code of Regulations, 40 CFR 122.44(d) requires delegated States to develop procedures for determining whether a discharge causes, has the reasonable potential to cause, or contributes to an instream excursion above a narrative or numeric criteria within a State water. If such reasonable potential is determined to exist, the NPDES permit must contain pollutant effluent limits and/or effluent limits for whole effluent toxicity. Georgia's Reasonable Potential Procedures are based on Georgia's Rules and Regulations for Water Quality Control (Rules), Chapter 391-3-6-.06(4)(d)5. The chemical specific and biomonitoring data and other pertinent information in EPD's files will be considered in accordance with the review procedures specified in the Rules in the evaluation of a permit application and in the evaluation of the reasonable potential for an effluent to cause an exceedence in the numeric or narrative criteria.

A Reasonable Potential Analysis was performed on the data submitted with the application and the results of those analyses are stated below in the following sections.

EPD evaluated the data provided in the application and supporting documents. If a pollutant is listed below, EPD determined it was a pollutant of concern and there may be a reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standards. If a pollutant is not listed below, EPD determined that the pollutant is not a pollutant of concern or has determined, based on the data provided in the application, there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standards. An example would be if the applicant reported "not detect," "below detection limit," or a value that was below the detection limit for a pollutant.

Based on the RPA conducted for the discharges there is no need for WQBEL for metals for outfalls 01B, 01E, and 04. See Appendix D - RP analysis spreadsheet calculation for each outfall attached to this Fact Sheet.

4.2 Whole Effluent Toxicity

Chronic WET test measures the effect of wastewater on indicator organisms' growth, reproduction and survival. Effluent toxicity is predicted when the No Observable Effect Concentrations for a test organism is less than the facility's instream waste concentration.

Outfall ID: 01B

Chronic testing for *Ceriodaphnia dubia* and *Pimephales promelas* was conducted from May 13, 2014 thru May 20, 2014 on outfall 01B.

The toxicity test results did not indicate chronic toxicity for the water flea or fathead minnow for sample concentrations tested below the requirements of the permit, when statistically compared to the laboratory control. For the samples tested, the NOEC was 1.2% effluent for water flea survival and 0.6% for water flea production. The NOEC was 1.2% effluent for fathead minnow survival and growth. No toxic effects were detected.

4.3 Applicable Water Quality and Technology Based Effluent Limitations

Water Quality Based Effluent Limits (WQBELs)

When drafting a National Pollutant Discharge Elimination System (NPDES) permit, a permit writer must consider the impact of the proposed discharge on the quality of the receiving water. Water quality goals for a waterbody are defined by state water quality standards. By analyzing the effect of a discharge on the receiving water, a permit writer could find that technology-based effluent limitations (TBELs) alone will not achieve the applicable water quality standards. In such cases, the Clean Water Act (CWA) and its implementing regulations require development of water quality-based effluent limitations (WQBELs). WQBELs help meet the CWA objective of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters and the goal of water quality that provides for the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water (*fishable/swimmable*).

WQBELs are designed to protect water quality by ensuring that water quality standards are met in the receiving water and downstream uses are protected. On the basis of the requirements of Title 40 of the *Code of Federal Regulations* (CFR) 125.3(a), additional or more stringent effluent limitations and conditions, such as WQBELs, are imposed when TBELs are not sufficient to protect water quality.

The term *pollutant* is defined in CWA section 502(6) and § 122.2. Pollutants are grouped into three categories under the NPDES program: conventional, toxic, and nonconventional. Conventional pollutants are those defined in CWA section 304(a)(4) and § 401.16 (BOD_5, TSS, fecal coliform, pH, and oil and grease). Toxic (priority) pollutants are those defined in CWA section 307(a)(1) and include 126 metals and manmade organic compounds. Nonconventional pollutants are those that do not fall under either of the above categories (conventional or toxic pollutants) and include parameters such as chlorine, ammonia, nitrogen, phosphorus, chemical oxygen demand (COD), and whole effluent toxicity (WET).

Applicable Technology Based Effluent Limits (TBELs)

Technology-based effluent limitations aim to prevent pollution by requiring a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the United States. TBELs are developed independently of the potential impact of a discharge on the receiving water, which is addressed through water quality standards and water quality-based effluent limitations. The NPDES regulations at Title 40 of the Code of Federal Regulations 125.3(a) require NPDES permit writers to develop technology-based treatment requirements, consistent with CWA section 301(b), that represent the minimum level of control that must be imposed in a permit. The regulation also indicates that permit writers must include in permits additional or more stringent effluent limitations and conditions, including those necessary to protect water quality.

For pollutants not specifically regulated by Federal Effluent Limit Guidelines, the permit writer must identify any needed technology-based effluent limitations and utilize best professional judgment to establish technology-based limits or determine other appropriate means to control its discharge if there is a reasonable potential to cause or contribute to a violation of the water quality standards.

4.4 Conventional Pollutants

Pollutants of Concern	Outfall Number	Basis
pH	01B	WQBEL The instream waste concentration is 0.72%. When the instream waste concentration is less than 50%, it results in no reasonable potential to cause or contribute to violation of the instream Georgia Water Quality Standard; therefore a limit of 6.0 s.u. to 9.0 s.u has been added.
		TBEL The pH effluent limit of 6.0 s.u. – 9.0 s.u. is required under 40 CFR 423.12(b)(1) Best Practicable Control Technology Currently Available (BPT).
	01E	WQBEL The instream waste concentration is 1.9%. When the instream waste concentration is less than 50%, it results in no reasonable potential to cause or contribute to violation of the instream Georgia Water Quality Standard; therefore a limit of 6.0 s.u. to 9.0 s.u. has been added.
		TBEL The pH effluent limit of 6.0 s.u. – 9.0 s.u. is required under 40 CFR 423.12(b)(1) Best Practicable Control Technology Currently Available (BPT).
	04	WQBEL The instream waste concentration is 5.3%. When the instream waste concentration is less than 50%, it results in no reasonable potential to cause or contribute to violation of the instream Georgia Water Quality Standard; therefore a limit of 6.0 s.u. to 9.0 s.u. has been added.
		TBEL The pH effluent limit of 6.0 s.u. – 9.0 s.u. is required under 40 CFR 423.12(b)(1) Best Practicable Control Technology Currently Available (BPT).
Total Suspended Solids (TSS)	01B, 01E and 04	WQBEL GA does not have a narrative Water Quality Standard for total suspended solids.
		TBEL The average daily and maximum daily limits for TSS of 30/100 mg/L are based on 40 CFR 423.12(b)(3) best practicable control technology currently available (BPT).
Oil & Grease	01B, 01E and 04	WQBEL GA has a narrative Water Quality Standard for oil & grease.

		TBEL The daily average and daily maximum limits for oil & grease of 15/20 mg/L are based on 40 CFR 423.12(b)(3) Best Practicable Control Technology Currently Available (BPT).

4.5 Toxics & Manmade Organic Compounds (126 Priority Pollutants and Metals)

Outfall 01B

Pollutants of Concern	Outfall Number	Basis
Arsenic, Total	01B	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for arsenic. Please see Section 5.1 for further discussion.
		TBEL There is no applicable federal technology based effluent limit.
Cadmium, Total	01B	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for cadmium.
		TBEL There is no applicable federal technology based effluent limit. Please see Section 5.1 for further discussion.
Chromium, Total	01B	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for chromium. Please see Section 5.1 for further discussion.
		TBEL There is no applicable federal technology based effluent limit.
Copper, Total	01B	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for copper. Please see Section 5.1 for further discussion.
		TBEL There is no applicable federal technology based

		effluent limit.
Lead, Total	01B	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for lead. Please see Section 5.1 for further discussion.
		TBEL There is no applicable federal technology based effluent limit.
Mercury	01B	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for mercury. Please see Section 5.1 for further discussion.
		TBEL There is no applicable federal technology based effluent limit.
Nickel, Total	01B	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for nickel. Please see Section 5.1 for further discussion.
		TBEL There is no applicable federal technology based effluent limit.
Zinc, Total	01B	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for zinc. Please see Section 5.1 for further discussion.
		TBEL There is no applicable federal technology based effluent limit.
Selenium	01B	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for selenium. Please see Section 5.1 for further discussion.
		TBEL There is no applicable federal technology based effluent limit.

Outfall Nos. 01E and 04

Pollutants of Concern	Outfall Number	Basis
Arsenic, Total	01E and 04	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for arsenic. EPD has included monitoring requirements when there is a discharge from the outfall. Please see Section 5.1 for further discussion.
		TBEL There is no applicable federal technology based effluent limit.
Cadmium, Total	01E and 04	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for cadmium. EPD has included monitoring requirements when there is a discharge from the outfall. Please see Section 5.1 for further discussion.
		TBEL There is no applicable federal technology based effluent limit. Please see Section 5.1 for further discussion.
Chromium, Total	01E and 04	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for chromium. EPD has included monitoring requirements when there is a discharge from the outfall. Please see Section 5.1 for further discussion.
		TBEL There is no applicable federal technology based effluent limit.
Copper, Total	01E and 04	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for copper. EPD has included monitoring requirements when there is a discharge from the outfall. Please see Section 5.1 for further

		discussion.
		TBEL There is no applicable federal technology based effluent limit.
Lead, Total	01E and 04	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for lead. EPD has included monitoring requirements when there is a discharge from the outfall. Please see Section 5.1 for further discussion.
		TBEL There is no applicable federal technology based effluent limit.
Mercury	01E and 04	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for mercury. EPD has included monitoring requirements when there is a discharge from the outfall. Please see Section 5.1 for further discussion.
		TBEL There is no applicable federal technology based effluent limit.
Nickel, Total	01E and 04	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for nickel. EPD has included monitoring requirements when there is a discharge from the outfall. Please see Section 5.1 for further discussion.
		TBEL There is no applicable federal technology based effluent limit.
Zinc, Total	01E and 04	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for zinc. EPD has included monitoring requirements when there is a discharge from the outfall. Please see Section 5.1 for further discussion.
		TBEL There is no applicable federal technology based

		effluent limit.
Selenium	01E and 04	WQBEL The results of the reasonable potential analysis indicated there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standard for selenium. EPD has included monitoring requirements when there is a discharge from the outfall. Please see Section 5.1 for further discussion. TBEL There is no applicable federal technology based effluent limit.

4.6 Calculations for Water Quality Based Effluent Limits

4.6.a Instream Waste Concentration (IWC) Calculation

$$IWC = \frac{\text{Effluent Flow (gal/day)}}{\text{Effluent Flow (gal/day)} + 7Q10\text{ (gal/day)}}$$

Outfall 01B

$$IWC = \frac{4{,}320{,}000\text{ gal/day}}{4{,}320{,}000\text{ gal/day} + 596{,}509{,}056\text{ gal/day}} \times 100\% = 0.72\%$$

Outfall 01E

$$IWC = \frac{11{,}520{,}000\text{ gal/day}}{11{,}520{,}000\text{ gal/day} + 596{,}509{,}056\text{ gal/day}} \times 100\% = 1.9\%$$

Outfall 04

$$IWC = \frac{33{,}120{,}000\text{ gal/day}}{33{,}120{,}000\text{ gal/day} + 596{,}509{,}056\text{ gal/day}} \times 100\% = 5.3\%$$

4.6.b Metals

See the reasonable potential (RP) spreadsheet calculations tables for applicable metals in Appendix C of this Fact Sheet.

4.7 Comparison & Summary of Water Quality vs. Technology Based Effluent Limits

After preparing and evaluating applicable technology-based effluent limitations and water quality-based effluent limitations, the most stringent limits are applied in the permit. Pollutants of concern with an effluent limit of monitor and report are not included in the below table.

Outfall 01B, 01E, and 04

Parameter	WQBELs	TBELs	Explanation
pH (s.u.)	6.0 – 9.0	6.0 – 9.0	WQBEL/TBEL-BAT (BPT)
TSS (mg/L)	None	30/100	TBEL-BAT (BPT)
Oil & Grease (mg/L)	GA Narrative WQS	15/20	TBEL-BAT (BPT)

5.0 Other Permit Requirements and Considerations

5.1 Permit Conditions

a. The following language is an excerpt out of the Preamble to the 40 CFR Part 423, regarding legacy wastewater.

Legacy Wastewater

"For purposes of the BAT limitations in this rule, this preamble uses the term "legacy wastewater" to refer to FGD wastewater, fly ash transport water, bottom ash transport water, FGMC wastewater, or gasification wastewater generated prior to the date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023 (see Section VIII.C.7). Under this rule, legacy wastewater must comply with specific BAT limitations, which EPA is setting equal to the previously promulgated BPT limitations on TSS in the discharge of fly ash transport water, bottom ash transport water, and low volume waste sources.

EPA did not establish zero discharge BAT limitations for legacy wastewater because technologies that can achieve zero discharge (such as the ones on which the final BAT requirements discussed in Sections VIII.C.2, 3, and 4, above, are based) are not shown to be available for legacy wastewater. Legacy wastewater already exists in wet form, and thus dry handling could not be used eliminate its discharge. Furthermore, EPA lacks data to show that legacy wastewater could be reliably incorporated into a closed-loop process that eliminates discharges, given the variation in operating practices among surface impoundments containing legacy wastewater.

EPA also decided not to establish BAT limitations for legacy wastewater based on a technology other than surface impoundments (chemical precipitation, chemical precipitation plus biological treatment, evaporation) because it does not have the data to do so. Data are not available because of the way that legacy wastewater is currently handled at plants.

The vast majority of plants combine some of their legacy wastewater with each other and with other wastestreams, including cooling water, coal pile runoff, metal cleaning wastes, and low volume waste sources in surface impoundments.[28] Once combined in surface impoundments, the legacy wastewater no longer has the same characteristics that it did when it was first generated. For example, the addition of cooling water can dilute legacy wastewater to a point where the pollutants are no longer present at treatable levels. Additionally, some wastestreams have significant variations in flow, such as metal cleaning wastes, which are generally infrequently generated, or coal pile runoff, which is generated during precipitation events. Because surface impoundments are typically open, with no cover, they also receive direct precipitation. As a result of all of this, the characteristics of legacy wastewater contained in surface impoundments (flow rate and pollutant concentrations) vary at both any given plant, as well as across plants nationwide. Furthermore, EPA generally would like to have enough performance data at a well-designed, well-operated plant or plants to derive limitations and standards using its well-established and judicially upheld statistical methodology. In this case, except in limited circumstances, plants do not treat the legacy wastewater that they send to an impoundment using anything beyond the surface impoundment itself.[29] Thus, the final rule establishes BAT limitations for legacy wastewater equal to the previously promulgated BPT limitations on TSS in discharges of fly ash transport water, bottom ash transport water, and low volume waste sources.

Finally, while there are a few plants that discharge from an impoundment containing only legacy FGD wastewater,[30] EPA rejected establishing requirements for such legacy FGD wastewater based on a technology other than surface impoundments. EPA determined that, while it could be possible for plants to treat the legacy FGD wastewater with the same technology used to treat FGD wastewater subject to the BAT limitations described in Section VIII.C.1 (because their characteristics could be similar), establishing requirements based on any technology more advanced than surface impoundments for these legacy "FGD-only" wastewater impoundments could encourage plants to alter their operations prior to the date that the final limitations apply in order to avoid the new requirements. Likely, a plant would begin commingling other process wastewater with their legacy FGD wastewater in the impoundment so that any legacy "FGD-only" wastewater requirements would no longer apply. Alternatively, plants might choose to pump the legacy FGD wastewater out of the impoundment on an accelerated schedule and prior to the date that the final limitations apply. In this case, the more rapid discharge of the wastewater could result in temporary increases in environmental impacts (*e.g.*, exceedances of WQC for acute impacts to aquatic life). EPA wanted to avoid creating such incentives in this rule, and it therefore decided to establish BAT limitations for discharges of legacy FGD wastewater based on the previously promulgated BPT limitations on TSS for low volume waste sources. Finally, EPA notes that, as a result of the zero discharge requirements for discharges of all pollutants in three wastestreams (fly ash transport water, bottom ash transport water, and flue gas mercury control wastewater), this rule provides strong incentives for steam electric power plants to greatly reduce, if not completely eliminate, the disposal and

treatment of their major sources of ash-containing wastewater in surface impoundments. As a result, EPA anticipates that overall volumes of legacy wastewater will continue to decrease dramatically over time, as this rule becomes fully implemented..."

"For purposes of the BAT limitations in this rule, legacy wastewater is FGD wastewater, fly ash transport water, bottom ash transport water, FGMC wastewater, and gasification wastewater generated prior to the date established by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023 (see Section VIII.C.7 and Section VIII.C.8).[58] Direct discharges of legacy wastewater are, under this rule, subject to BAT effluent limitations on TSS in such wastewater, which are equal to the existing BPT effluent limitations on TSS in fly ash transport water, bottom ash transport water, and low volume waste sources.[59] See TDD Section 14 for additional information regarding the legacy wastewater BAT limitations and on implementing them into NPDES permits."

b. No Discharge of Polychlorinated Biphenyl Compounds
There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

c. Coal Ash Pond Dewatering Plan
Effective on January 4, 2016, Technology Based Effluent Limits were developed by EPA in 40 CFR Part 423, for the discharges associated with coal ash ponds. This facility is not currently undergoing any activities associated with the dewatering of the coal ash ponds. However, there is a potential for dewatering activities to initiate prior to the end of the permit term. EPD is requiring the permittee to submit a Coal Ash Pond Dewatering Plan (Plan) for review and approval at least 90 days prior to starting any coal ash pond dewatering activities. The timeframe will allow EPD the necessary time to review the Plan, conduct a site visit, if necessary, and address any concerns.

Additionally, the Plan must contain at a minimum the following components

i. Detailed description of the dewatering activities, current volume of wastewater in the ponds to be dewatered, wastewater treatment system components, flow schematics, and appropriate maps of the site;

ii. Detailed description of the process controls being installed, measured and maintained, including the effluent quality targets for total suspended solids, pH (s.u.), total residual chlorine, and turbidity (NTU);

ii. Detailed description of the monitoring devices, equipment and associated activities;

iv. At a minimum, once a week representative effluent sampling and monitoring for the following pollutants of concern: pH (s.u.), total suspended solids, biochemical oxygen demand,$_{5\text{-day}}$, oil and grease, turbidity (NTU), total residual chlorine, total dissolved solids, copper, total, selenium, total, arsenic, total, mercury, total, chromium, total,

lead, total, cadmium, total, zinc, total, nickel, total, ammonia, TKN, organic nitrogen, nitrate/nitrite, phosphorus, ortho phosphorus, and hardness;

v. At a minimum, twice a month upstream and downstream stream representative sampling for the pollutants of concern listed above in Part III.C.2.a.iv above;

vi. Description of the sufficiently sensitive analytical methods employed;

vii. Description of data collection, record keeping and reporting to EPD;

viii. Description of draw down rates to ensure the integrity of the ponds; and

ix. An immediate (within 24 hours) Notification Process and general Corrective Measures Plan if any of the following scenarios should occur during the dewatering activities:

1. The continuously monitored effluent quality targets for total suspended solids, pH (s.u.), total residual chlorine, or turbidity (NTU) are not achieved and the automatic return system fails resulting in a discharge of wastewater that did not meet the established effluent quality targets; or

2. There is visible foam other than trace amounts discharged to waters of the State.

EPD will evaluate the submitted data and determine if there is a reasonable potential for the discharge to cause or contribute to a violation of the instream water quality standards and if necessary, may open the permit to include applicable effluent limits to protect the receiving water body.

b. Additionally, upon submittal of the Plan, the permittee shall begin instream sampling to establish background conditions. The permittee shall perform representative sampling upstream and downstream of the permitted outfalls twice per month collected by a grab sample. The stream samples will be analyzed for the pollutants of concern listed in Part III.C.2.a.iv and meet the requirements in 40 CFR Part 136.

d. Coal Ash Pond Impoundment Integrity

Part III.E of the permit requires inspections, record keeping and reporting and corrective measures to ensure the integrity of the coal ash pond impoundments. Ash Pond A is inactive and therefore not subject to the requirements of Part III.E.

5.2 Anti-Backsliding

The limits in this permit are in compliance with the 40 C.F.R. 122.44(l), which requires a reissued permit to be as stringent as the previous permit.

6.0 REPORTING

The facility has been assigned to the following EPD office for reporting, compliance and enforcement.

Georgia Environmental Protection Division
Watershed Compliance Program
2 Martin Luther King Jr. Drive
Suite 1152 East
Atlanta, Georgia 30334

6.1 E-Reporting

The permittee is required to electronically submit documents in accordance with 40 CFR Part 127.

7.0 REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

Not applicable

8.0 PERMIT EXPIRATION

The permit will expire five years from the effective date.

9.0 PROCEDURES FOR THE FORMULATION OF FINAL DETERMINATIONS

9.1 Comment Period

The Georgia Environmental Protection Division (EPD) proposes to issue a permit to this applicant subject to the effluent limitations and special conditions outlined above. These determinations are tentative.

Georgia Environmental Protection Division
Wastewater Regulatory Program
2 Martin Luther King Jr. Drive
Suite 1152 East
Atlanta, Georgia 30334

The permit application, draft permit, and other information are available for review at 2 Martin Luther King Jr. Drive, Suite 1152 East, Atlanta, Georgia 30334, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday. For additional information, you can contact 404-463-1511.

9.2 Public Comments

Persons wishing to comment upon or object to the proposed determinations are invited to submit same in writing to the EPD address above, or via e-mail at *EPDcomments@dnr.ga.gov* within 30 days of the initiation of the public comment period. All comments received prior to that date will be considered in the formulation of final determinations regarding the application. The permit number should be placed on the top of the first page of comments to ensure that your comments will be forwarded to the appropriate staff.

9.3 Public Hearing

Any applicant, affected state or interstate agency, the Regional Administrator of the U.S. Environmental Protection Agency (EPA) or any other interested agency, person or group of persons may request a public hearing with respect to an NPDES permit application if such request is filed within thirty (30) days following the date of the public notice for such application. Such request must indicate the interest of the party filing the request, the reasons why a hearing is requested, and those specific portions of the application or other NPDES form or information to be considered at the public hearing.

The Director shall hold a hearing if he determines that there is sufficient public interest in holding such a hearing. If a public hearing is held, notice of same shall be provided at least thirty (30) days in advance of the hearing date.

In the event that a public hearing is held, both oral and written comments will be accepted; however, for the accuracy of the record, written comments are encouraged. The Director or a designee reserves the right to fix reasonable limits on the time allowed for oral statements and such other procedural requirements, as deemed appropriate.

Following a public hearing, the Director, unless it is decided to deny the permit, may make such modifications in the terms and conditions of the proposed permit as may be appropriate and shall issue the permit.

If no public hearing is held, and, after review of the written comments received, the Director determines that a permit should be issued and that the determinations as set forth in the proposed permit are substantially unchanged, the permit will be issued and will become final in the absence of a request for a contested hearing. Notice of issuance or denial will be made available to all interested persons and those persons that submitted written comments to the Director on the proposed permit.

If no public hearing is held, but the Director determines, after a review of the written comments received, that a permit should be issued but that substantial changes in the proposed permit are warranted, public notice of the revised determinations will be given and written comments accepted in the same manner as the initial notice of application was given and written comments accepted pursuant to EPD Rules, Water Quality Control, subparagraph 391-3-6-.06(7)(b). The Director shall provide an opportunity for public hearing on the revised determinations. Such opportunity for public hearing and the issuance or denial of a permit thereafter shall be in accordance with the procedures as are set forth above.

9.4 Final Determination

At the time that any final permit decision is made, the Director shall issue a response to comments. The issued permit and responses to comments can be can be found at the following address:

http://epd.georgia.gov/watershed-protection-branch-permit-and-public-comments-clearinghouse-0

9.5 Contested Hearings

Any person who is aggrieved or adversely affected by the issuance or denial of a permit by the Director of EPD may petition the Director for a hearing if such petition is filed in the office of the Director within thirty (30) days from the date of notice of such permit issuance or denial. Such hearing shall be held in accordance with the EPD Rules, Water Quality Control, subparagraph 391-3-6-.01.

Petitions for a contested hearing must include the following:

1. The name and address of the petitioner;
2. The grounds under which petitioner alleges to be aggrieved or adversely affected by the issuance or denial of a permit;
3. The reason or reasons why petitioner takes issue with the action of the Director;
4. All other matters asserted by petitioner which are relevant to the action in question.

Appendix A – 40 CFR 423 - Stream Electric Power Generating Regulations

§423.10 Applicability.

The provisions of this part apply to discharges resulting from the operation of a generating unit by an establishment whose generation of electricity is the predominant source of revenue or principal reason for operation, and whose generation of electricity results primarily from a process utilizing fossil-type fuel (coal, oil, or gas), fuel derived from fossil fuel (*e.g.*, petroleum coke, synthesis gas), or nuclear fuel in conjunction with a thermal cycle employing the steam water system as the thermodynamic medium. This part applies to discharges associated with both the combustion turbine and steam turbine portions of a combined cycle generating unit.

§423.11 Specialized definitions.

In addition to the definitions set forth in 40 CFR part 401, the following definitions apply to this part:

(a) The term *total residual chlorine* (or total residual oxidants for intake water with bromides) means the value obtained using any of the "chlorine—total residual" methods in Table IB in 40 CFR 136.3(a), or other methods approved by the permitting authority.

(b) The term *low volume waste sources* means, taken collectively as if from one source, wastewater from all sources except those for which specific limitations or standards are otherwise established in this part. Low volume waste sources include, but are not limited to, the following: Wastewaters from ion exchange water treatment systems, water treatment evaporator blowdown, laboratory and sampling streams, boiler blowdown, floor drains, cooling tower basin cleaning wastes, recirculating house service water systems, and wet scrubber air pollution control systems whose primary purpose is particulate removal. Sanitary wastes, air conditioning wastes, and wastewater from carbon capture or sequestration systems are not included in this definition.

(c) The term *chemical metal cleaning waste* means any wastewater resulting from the cleaning of any metal process equipment with chemical compounds, including, but not limited to, boiler tube cleaning.

(d) The term *metal cleaning waste* means any wastewater resulting from cleaning [with or without chemical cleaning compounds] any metal process equipment including, but not limited to, boiler tube cleaning, boiler fireside cleaning, and air preheater cleaning.

(e) The term *fly ash* means the ash that is carried out of the furnace by a gas stream and collected by a capture device such as a mechanical precipitator, electrostatic precipitator, or fabric filter. Economizer ash is included in this definition when it is collected with fly ash. Ash is not included in this definition when it is collected in wet scrubber air pollution control systems whose primary purpose is particulate removal.

(f) The term *bottom ash* means the ash, including boiler slag, which settles in the furnace or is dislodged from furnace walls. Economizer ash is included in this definition when it is collected

with bottom ash.

(g) The term *once through cooling water* means water passed through the main cooling condensers in one or two passes for the purpose of removing waste heat.

(h) The term *recirculated cooling water* means water which is passed through the main condensers for the purpose of removing waste heat, passed through a cooling device for the purpose of removing such heat from the water and then passed again, except for blowdown, through the main condenser.

(i) The term *10 year, 24/hour rainfall event* means a rainfall event with a probable recurrence interval of once in ten years as defined by the National Weather Service in Technical Paper No. 40. *Rainfall Frequency Atlas of the United States,* May 1961 or equivalent regional rainfall probability information developed therefrom.

(j) The term *blowdown* means the minimum discharge of recirculating water for the purpose of discharging materials contained in the water, the further buildup of which would cause concentration in amounts exceeding limits established by best engineering practices.

(k) The term *average concentration* as it relates to chlorine discharge means the average of analyses made over a single period of chlorine release which does not exceed two hours.

(l) The term *free available chlorine* means the value obtained using any of the "chlorine—free available" methods in Table IB in 40 CFR 136.3(a) where the method has the capability of measuring free available chlorine, or other methods approved by the permitting authority.

(m) The term *coal pile runoff* means the rainfall runoff from or through any coal storage pile.

(n) The term flue gas desulfurization (FGD) wastewater means any wastewater generated specifically from the wet flue gas desulfurization scrubber system that comes into contact with the flue gas or the FGD solids, including but not limited to, the blowdown from the FGD scrubber system, overflow or underflow from the solids separation process, FGD solids wash water, and the filtrate from the solids dewatering process. Wastewater generated from cleaning the FGD scrubber, cleaning FGD solids separation equipment, cleaning FGD solids dewatering equipment, or that is collected in floor drains in the FGD process area is not considered FGD wastewater.

(o) The term flue gas mercury control wastewater means any wastewater generated from an air pollution control system installed or operated for the purpose of removing mercury from flue gas. This includes fly ash collection systems when the particulate control system follows sorbent injection or other controls to remove mercury from flue gas. FGD wastewater generated at plants using oxidizing agents to remove mercury in the FGD system and not in a separate FGMC system is not included in this definition.

(p) The term transport water means any wastewater that is used to convey fly ash, bottom ash, or economizer ash from the ash collection or storage equipment, or boiler, and has direct contact with the ash. Transport water does not include low volume, short duration discharges of wastewater from minor leaks (*e.g.,* leaks from valve packing, pipe flanges, or piping) or minor maintenance events (*e.g.,* replacement of valves or pipe sections).

(q) The term gasification wastewater means any wastewater generated at an integrated gasification combined cycle operation from the gasifier or the syngas cleaning, combustion, and cooling processes. Gasification wastewater includes, but is not limited to the following: Sour/grey water; CO_2/steam stripper wastewater; sulfur recovery unit blowdown, and wastewater resulting from slag handling or fly ash handling, particulate removal, halogen removal, or trace organic removal. Air separation unit blowdown, noncontact cooling water, and runoff from fuel and/or byproduct piles are not considered gasification wastewater. Wastewater that is collected intermittently in floor drains in the gasification process area from leaks, spills, and cleaning occurring during normal operation of the gasification operation is not considered gasification wastewater.

(r) The term combustion residual leachate means leachate from landfills or surface impoundments containing combustion residuals. Leachate is composed of liquid, including any suspended or dissolved constituents in the liquid, that has percolated through waste or other materials emplaced in a landfill, or that passes through the surface impoundment's containment structure (*e.g.*, bottom, dikes, berms). Combustion residual leachate includes seepage and/or leakage from a combustion residual landfill or impoundment unit. Combustion residual leachate includes wastewater from landfills and surface impoundments located on non-adjoining property when under the operational control of the permitted facility.

(s) The term oil-fired unit means a generating unit that uses oil as the primary or secondary fuel source and does not use a gasification process or any coal or petroleum coke as a fuel source. This definition does not include units that use oil only for start up or flame-stabilization purposes.

(t) The phrase "as soon as possible" means November 1, 2018, unless the permitting authority establishes a later date, after receiving information from the discharger, which reflects a consideration of the following factors:

(1) Time to expeditiously plan (including to raise capital), design, procure, and install equipment to comply with the requirements of this part.

(2) Changes being made or planned at the plant in response to:

(i) New source performance standards for greenhouse gases from new fossil fuel-fired electric generating units, under sections 111, 301, 302, and 307(d)(1)(C) of the Clean Air Act, as amended, 42 U.S.C. 7411, 7601, 7602, 7607(d)(1)(C);

(ii) Emission guidelines for greenhouse gases from existing fossil fuel-fired electric generating units, under sections 111, 301, 302, and 307(d) of the Clean Air Act, as amended, 42 U.S.C. 7411, 7601, 7602, 7607(d); or

(iii) Regulations that address the disposal of coal combustion residuals as solid waste, under sections 1006(b), 1008(a), 2002(a), 3001, 4004, and 4005(a) of the Solid Waste Disposal Act of 1970, as amended by the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. 6906(b), 6907(a), 6912(a), 6944, and 6945(a).

(3) For FGD wastewater requirements only, an initial commissioning period for the treatment system to optimize the installed equipment.

(4) Other factors as appropriate.

§423.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, utilization of facilities, raw materials, manufacturing processes, non-water quality environmental impacts, control and treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES Permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The phrase "other such factors" appearing above may include significant cost differentials. In no event may a discharger's impact on receiving water quality be considered as a factor under this paragraph.

(b) Any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction by the application of the best practicable control technology currently available (BPT):

(1) The pH of all discharges, except once through cooling water, shall be within the range of 6.0-9.0.

(2) There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

(3) The quantity of pollutants discharged from low volume waste sources shall not exceed the quantity determined by multiplying the flow of low volume waste sources times the concentration lised in the following table:

Pollutant or pollutant property	BPT effluent limitations	
	Maximum for any 1 day (mg/l)	Average of daily values for 30 consecutive days shall not exceed (mg/l)
TSS	100.0	30.0
Oil and grease	20.0	15.0

(4) The quantity of pollutants discharged in fly ash and bottom ash transport water shall not exceed the quantity determined by multiplying the flow of fly ash and bottom ash transport water times the concentration listed in the following table:

Pollutant or pollutant property	BPT effluent limitations	
	Maximum for any 1 day (mg/l)	Average of daily values for 30 consecutive days shall not exceed (mg/l)
TSS	100.0	30.0
Oil and grease	20.0	15.0

(5) The quantity of pollutants discharged in metal cleaning wastes shall not exceed the quantity determined by multiplying the flow of metal cleaning wastes times the concentration listed in the following table:

Pollutant or pollutant property	BPT effluent limitations	
	Maximum for any 1 day (mg/l)	Average of daily values for 30 consecutive days shall not exceed (mg/l)
TSS	100.0	30.0
Oil and grease	20.0	15.0
Copper, total	1.0	1.0
Iron, total	1.0	1.0

(6) The quantity of pollutants discharged in once through cooling water shall not exceed the quantity determined by multiplying the flow of once through cooling water sources times the concentration listed in the following table:

Pollutant or pollutant property	BPT effluent limitations	
	Maximum concentration (mg/l)	Average concentration (mg/l)
Free available chlorine	0.5	0.2

(7) The quantity of pollutants discharged in cooling tower blowdown shall not exceed the quantity determined by multiplying the flow of cooling tower blowdown sources times the concentration listed in the following table:

Pollutant or pollutant property	BPT effluent limitations	
	Maximum concentration (mg/l)	Average concentration (mg/l)
Free available chlorine	0.5	0.2

(8) Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available or total residual chlorine at any one time unless the utility can demonstrate to the Regional Administrator or State, if the State has NPDES permit issuing authority, that the units in a particular location cannot operate at or below this level or chlorination.

(9) Subject to the provisions of paragraph (b)(10) of this section, the following effluent limitations shall apply to the point source discharges of coal pile runoff:

Pollutant or pollutant property	BPT effluent limitations
	Maximum concentration for any time (mg/l)
TSS	50

(10) Any untreated overflow from facilities designed, constructed, and operated to treat the volume of coal pile runoff which is associated with a 10 year, 24 hour rainfall event shall not be subject to the limitations in paragraph (b)(9) of this section.

(11) The quantity of pollutants discharged in FGD wastewater, flue gas mercury control wastewater, combustion residual leachate, or gasification wastewater shall not exceed the quantity determined by multiplying the flow of the applicable wastewater times the concentration listed in the following table:

Pollutant or pollutant property	BPT Effluent limitations

	Maximum for any 1 day (mg/l)	Average of daily values for 30 consecutive days shall not exceed (mg/l)
TSS	100.0	30.0
Oil and grease	20.0	15.0

(12) At the permitting authority's discretion, the quantity of pollutant allowed to be discharged may be expressed as a concentration limitation instead of the mass-based limitations specified in paragraphs (b)(3) through (b)(7), and (b)(11), of this section. Concentration limitations shall be those concentrations specified in this section.

(13) In the event that wastestreams from various sources are combined for treatment or discharge, the quantity of each pollutant or pollutant property controlled in paragraphs (b)(1) through (b)(12) of this section attributable to each controlled waste source shall not exceed the specified limitations for that waste source.

§423.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this part must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

(a) There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

(b)(1) For any plant with a total rated electric generating capacity of 25 or more megawatts, the quantity of pollutants discharged in once through cooling water from each discharge point shall not exceed the quantity determined by multiplying the flow of once through cooling water from each discharge point times the concentration listed in the following table

	BAT Effluent Limitations
Pollutant or pollutant property	**Maximum concentration (mg/l)**
Total residual chlorine	0.20

(2) Total residual chlorine may not be discharged from any single generating unit for more than two hours per day unless the discharger demonstrates to the permitting authority that discharge for more than two hours is required for macroinvertebrate control. Simultaneous multi-unit chlorination is permitted.

(c)(1) For any plant with a total rated generating capacity of less than 25 megawatts, the quantity of pollutants discharged in once through cooling water shall not exceed the quantity determined by multiplying the flow of once through cooling water sources times the concentration listed in the following table:

Pollutant or pollutant property	BAT effluent limitations	
	Maximum concentration (mg/l)	**Average concentration (mg/l)**
Free available chlorine	0.5	0.2

(2) Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available or total residual chlorine at any one time unless the utility can demonstrate to the Regional Administrator or State, if the State has NPDES permit issuing authority, that the units in a particular location cannot operate at or below this level of chlorination.

(d)(1) The quantity of pollutants discharged in cooling tower blowdown shall not exceed the quantity determined by multiplying the flow of cooling tower blowdown times the concentration listed below:

Pollutant or pollutant property	BAT effluent limitations	
	Maximum concentration (mg/l)	**Average concentration (mg/l)**
Free available chlorine	0.5	0.2
Pollutant or pollutant property	**Maximum for any 1 day –(mg/l)**	**Average of daily values for 30 consecutive days shall not exceed = (mg/l)**
The 126 priority pollutants (Appendix A) contained in chemicals added for cooling tower maintenance, except:	([1])	([1])
Chromium, total	0.2	0.2
Zinc, total	1.0	1.0

[1]No detectable amount.

(2) Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available or total residual chlorine at any one time unless the utility can demonstrate to the Regional Administrator or State, if the State has NPDES permit issuing authority, that the units in a particular location cannot operate at or below this level of chlorination.

(3) At the permitting authority's discretion, instead of the monitoring specified in 40 CFR

122.11(b) compliance with the limitations for the 126 priority pollutants in paragraph (d)(1) of this section may be determined by engineering calculations which demonstrate that the regulated pollutants are not detectable in the final discharge by the analytical methods in 40 CFR part 136.

(e) The quantity of pollutants discharged in chemical metal cleaning wastes shall not exceed the quantity determined by multiplying the flow of chemical metal cleaning wastes times the concentration listed in the following table:

Pollutant or pollutant property	BAT effluent limitations	
	Maximum for any 1 day (mg/l)	**Average of daily values for 30 consecutive days shall not exceed –(mg/l)**
Copper, total	1.0	1.0
Iron, total	1.0	1.0

(f) [Reserved—Nonchemical Metal Cleaning Wastes].

(g)(1)(i) *FGD wastewater.* Except for those discharges to which paragraph (g)(2) or (g)(3) of this section applies, the quantity of pollutants in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the concentration listed in the table following this paragraph (g)(1)(i). Dischargers must meet the effluent limitations for FGD wastewater in this paragraph by a date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023. These effluent limitations apply to the discharge of FGD wastewater generated on and after the date determined by the permitting authority for meeting the effluent limitations, as specified in this paragraph.

Pollutant or pollutant property	BAT Effluent limitations	
	Maximum for any 1 day	**Average of daily values for 30 consecutive days shall not exceed**
Arsenic, total (ug/L)	11	8
Mercury, total (ng/L)	788	356
Selenium, total (ug/L)	23	12
Nitrate/nitrite as N (mg/L)	17.0	4.4

(ii) For FGD wastewater generated before the date determined by the permitting authority, as specified in paragraph (g)(1)(i), the quantity of pollutants discharged in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the concentration listed for TSS in §423.12(b)(11).

(2) For any electric generating unit with a total nameplate capacity of less than or equal to 50 megawatts or that is an oil-fired unit, the quantity of pollutants discharged in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the

concentration listed for TSS in §423.12(b)(11).

(3)(i) For dischargers who voluntarily choose to meet the effluent limitations for FGD wastewater in this paragraph, the quantity of pollutants in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the concentration listed in the table following this paragraph (g)(3)(i). Dischargers who choose to meet the effluent limitations for FGD wastewater in this paragraph must meet such limitations by December 31, 2023. These effluent limitations apply to the discharge of FGD wastewater generated on and after December 31, 2023.

	BAT Effluent limitations	
Pollutant or pollutant property	**Maximum for any 1 day**	**Average of daily values for 30 consecutive days shall not exceed**
Arsenic, total (ug/L)	4	
Mercury, total (ng/L)	39	24
Selenium, total (ug/L)	5	
TDS (mg/L)	50	24

(ii) For discharges of FGD wastewater generated before December 31, 2023, the quantity of pollutants discharged in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the concentration listed for TSS in §423.12(b)(11).

(h)(1)(i) *Fly ash transport water.* Except for those discharges to which paragraph (h)(2) of this section applies, or when the fly ash transport water is used in the FGD scrubber, there shall be no discharge of pollutants in fly ash transport water. Dischargers must meet the discharge limitation in this paragraph by a date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023. This limitation applies to the discharge of fly ash transport water generated on and after the date determined by the permitting authority for meeting the discharge limitation, as specified in this paragraph. Whenever fly ash transport water is used in any other plant process or is sent to a treatment system at the plant (except when it is used in the FGD scrubber), the resulting effluent must comply with the discharge limitation in this paragraph. When the fly ash transport water is used in the FGD scrubber, the quantity of pollutants in fly ash transport water shall not exceed the quantity determined by multiplying the flow of fly ash transport water times the concentration listed in the table in paragraph (g)(1)(i) of this section.

(ii) For discharges of fly ash transport water generated before the date determined by the permitting authority, as specified in paragraph (h)(1)(i) of this section, the quantity of pollutants discharged in fly ash transport water shall not exceed the quantity determined by multiplying the flow of fly ash transport water times the concentration listed for TSS in §423.12(b)(4).

(2) For any electric generating unit with a total nameplate generating capacity of less than or equal to 50 megawatts or that is an oil-fired unit, the quantity of pollutants discharged in fly ash

transport water shall not exceed the quantity determined by multiplying the flow of fly ash transport water times the concentration listed for TSS in §423.12(b)(4).

(i)(1)(i) *Flue gas mercury control wastewater.* Except for those discharges to which paragraph (i)(2) of this section applies, there shall be no discharge of pollutants in flue gas mercury control wastewater. Dischargers must meet the discharge limitation in this paragraph by a date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023. This limitation applies to the discharge of flue gas mercury control wastewater generated on and after the date determined by the permitting authority for meeting the discharge limitation, as specified in this paragraph. Whenever flue gas mercury control wastewater is used in any other plant process or is sent to a treatment system at the plant, the resulting effluent must comply with the discharge limitation in this paragraph.

(ii) For discharges of flue gas mercury control wastewater generated before the date determined by the permitting authority, as specified in paragraph (i)(1)(i) of this section, the quantity of pollutants discharged in flue gas mercury control wastewater shall not exceed the quantity determined by multiplying the flow of flue gas mercury control wastewater times the concentration for TSS listed in §423.12(b)(11).

(2) For any electric generating unit with a total nameplate generating capacity of less than or equal to 50 megawatts or that is an oil-fired unit, the quantity of pollutants discharged in flue gas mercury control wastewater shall not exceed the quantity determined by multiplying the flow of flue gas mercury control wastewater times the concentration for TSS listed in §423.12(b)(11).

(j)(1)(i) *Gasification wastewater.* Except for those discharges to which paragraph (j)(2) of this section applies, the quantity of pollutants in gasification wastewater shall not exceed the quantity determined by multiplying the flow of gasification wastewater times the concentration listed in the table following this paragraph (j)(1)(i). Dischargers must meet the effluent limitations in this paragraph by a date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023. These effluent limitations apply to the discharge of gasification wastewater generated on and after the date determined by the permitting authority for meeting the effluent limitations, as specified in this paragraph.

	BAT Effluent limitations	
Pollutant or pollutant property	**Maximum for any 1 day**	**Average of daily values for 30 consecutive days shall not exceed**
Arsenic, total (ug/L)	4	
Mercury, total (ng/L)	1.8	1.3
Selenium, total (ug/L)	453	227
Total dissolved solids (mg/L)	38	22

(ii) For discharges of gasification wastewater generated before the date determined by the permitting authority, as specified in paragraph (j)(1)(i) of this section, the quantity of pollutants

discharged in gasification wastewater shall not exceed the quantity determined by multiplying the flow of gasification wastewater times the concentration for TSS listed in §423.12(b)(11).

(2) For any electric generating unit with a total nameplate generating capacity of less than or equal to 50 megawatts or that is an oil-fired unit, the quantity of pollutants discharged in gasification wastewater shall not exceed the quantity determined by multiplying the flow of gasification wastewater times the concentration listed for TSS in §423.12(b)(11).

(k)(1)(i) *Bottom ash transport water.* Except for those discharges to which paragraph (k)(2) of this section applies, or when the bottom ash transport water is used in the FGD scrubber, there shall be no discharge of pollutants in bottom ash transport water. Dischargers must meet the discharge limitation in this paragraph by a date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023. This limitation applies to the discharge of bottom ash transport water generated on and after the date determined by the permitting authority for meeting the discharge limitation, as specified in this paragraph. Whenever bottom ash transport water is used in any other plant process or is sent to a treatment system at the plant (except when it is used in the FGD scrubber), the resulting effluent must comply with the discharge limitation in this paragraph. When the bottom ash transport water is used in the FGD scrubber, the quantity of pollutants in bottom ash transport water shall not exceed the quantity determined by multiplying the flow of bottom ash transport water times the concentration listed in the table in paragraph (g)(1)(i) of this section.

(ii) For discharges of bottom ash transport water generated before the date determined by the permitting authority, as specified in paragraph (k)(1)(i) of this section, the quantity of pollutants discharged in bottom ash transport water shall not exceed the quantity determined by multiplying the flow of bottom ash transport water times the concentration for TSS listed in §423.12(b)(4).

(2) For any electric generating unit with a total nameplate generating capacity of less than or equal to 50 megawatts or that is an oil-fired unit, the quantity of pollutants discharged in bottom ash transport water shall not exceed the quantity determined by multiplying the flow of the applicable wastewater times the concentration for TSS listed in §423.12(b)(4).

(l) *Combustion residual leachate.* The quantity of pollutants discharged in combustion residual leachate shall not exceed the quantity determined by multiplying the flow of combustion residual leachate times the concentration for TSS listed in §423.12(b)(11).

(m) At the permitting authority's discretion, the quantity of pollutant allowed to be discharged may be expressed as a concentration limitation instead of any mass based limitations specified in paragraphs (b) through (l) of this section. Concentration limitations shall be those concentrations specified in this section.

(n) In the event that wastestreams from various sources are combined for treatment or discharge, the quantity of each pollutant or pollutant property controlled in paragraphs (a) through (m) of this section attributable to each controlled waste source shall not exceed the specified limitation for that waste source.

(The information collection requirements contained in paragraphs (c)(2) and (d)(2) were approved by the Office of Management and Budget under control number 2040-0040. The information collection requirements contained in paragraph (d)(3) were approved under control number 2040-

0033)

Appendix B – Water Quality Waste Load Allocation

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Watershed Protection Branch
2 Martin Luther King, Jr. Drive
Suite 1152, East Tower
Atlanta, Georgia 30334
404-463-1511

Memorandum

Date: February 9, 2017

To: Josh Welte

Through: Audra Dickson

From: Audra Dickson

Subject: Permit Information Request for Reasonable Potential of Stream
GA Power Plant Mitchell
NPDES Permit No. GA0001465
Dougherty County, Flint River Basin

This is a request for permit information for the reasonable potential of the stream for the reissuance of the above referenced facility. Ammonia was reported as 0.2 mg/L for each outfall. Fecal coliform was reported as 18 col/100 ml.

Wastewater Regulatory Program

(Duplicate this section for each outfall)

Outfall No.: 01B	Lat/Long: 31° 26' 38" -84° 08' 14"
Name of Receiving Waters: Flint River	River Basin: Flint River
Average Flow (mgd): N/A	Maximum (Design) Flow (mgd):4.32 (3,000 gpm)
Summer Temperature (min & max): 29.9 C	Winter Temperature (min & max): 20.7 C

Watershed Planning and Monitoring Program

Please provide the following items about the receiving stream and indicate "NA" if an item does not apply.

- ☒ 7Q10 923 cfs
- ☒ 1Q10 772 cfs
- ☒ Mean Annual Stream Flow 5899 cfs
- ☒ Receiving Stream Hardness 42 mg/L as CaCO3
- ☒ Upstream TSS 8 mg/L

Outfall No.: 01E	Lat/Long: 31° 26' 37" -84° 08' 14"
Name of Receiving Waters: Flint River	River Basin: Flint River
Average Flow (mgd): N/A	Maximum (Design) Flow (mgd): 11.52 (8,000 gpm)
Summer Temperature (min & max): 29.9 C	Winter Temperature (min & max): 20.7 C

Watershed Planning and Monitoring Program

Please provide the following items about the receiving stream and indicate "NA" if an item does not apply.

- ☒ 7Q10 923 cfs
- ☒ 1Q10 772 cfs
- ☒ Mean Annual Stream Flow 5899 cfs
- ☒ Receiving Stream Hardness 42 mg/L as CaCO3
- ☒ Upstream TSS 8 mg/L

Outfall No.: 04	Lat/Long: 31° 26' 08" -84° 08' 28"
Name of Receiving Waters: Flint River	River Basin: Flint River
Average Flow (mgd): NA	Maximum (Design) Flow (mgd): 33.12 (23,000 gpm)
Summer Temperature (min & max): 29.9 C	Winter Temperature (min & max): 20.7 C

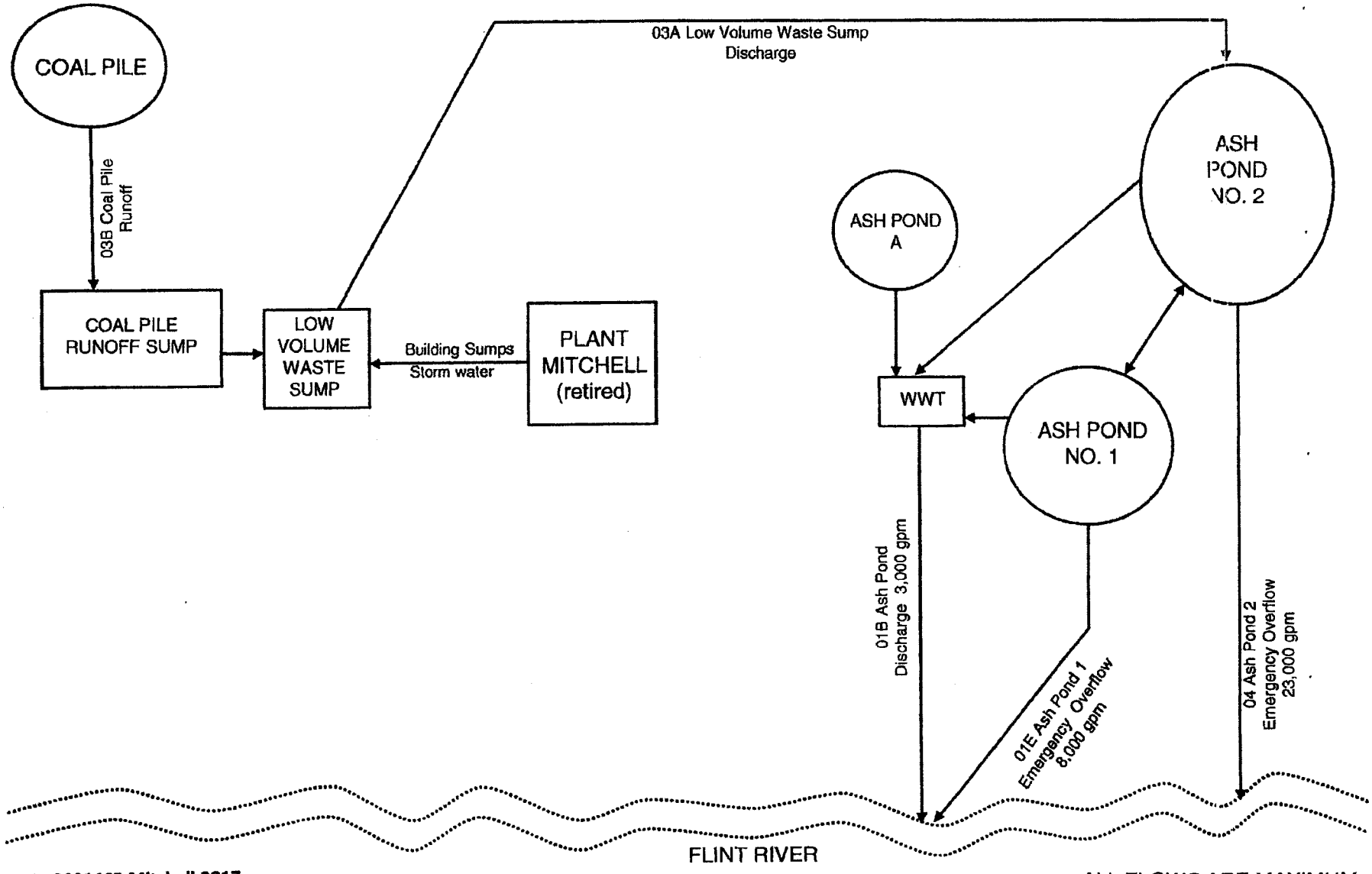
Watershed Planning and Monitoring Program

Please provide the following items about the receiving stream and indicate "NA" if an item does not apply.

- ☒ 7Q10 923 cfs
- ☒ 1Q10 772 cfs
- ☒ Mean Annual Stream Flow 5899 cfs
- ☒ Receiving Stream Hardness 42 mg/L as CaCO3
- ☒ Upstream TSS 8 mg/L

Appendix C – Process Flow Line Diagram

GEORGIA POWER COMPANY - PLANT MITCHELL
NPDES PERMIT NO. GA0001465



GA0001465 Mitchell 2017

ALL FLOWS ARE MAXIMUM

Appendix D – Reasonable Potential Analysis (RPA) Calculation for Metals Spreadsheet

Reasonable Potential Analysis for Freshwater

Permit Name: Georgia Power Company Plant Mitchell

NPDES Permit No. GA0001465 (outfall 01B)

Stream Data:

Receiving stream Hardness:	42	mg/L
Upstream TSS:	8	mg/L
7Q10:	923.00	ft^3/s
	596,509,056	gal/day
1Q10:	772.00	ft^3/s
	498,921,984	gal/day

Effluent Data:

Flow	4,320,000	gal/day
TSS	5.00	mg/L

Instream TSS:	7.98	mg/L
Acute Dilution factor:	116.49	
Chronic Dilution factor:	139.08	

Water Quality Criteria:

Mean annual streamflow at discharge:	5,899.00	ft^3/s
	3,812,356,528	gal/day
Dilution factor:	883.490	
IWC	0.719006506	

$$IWC = \frac{Flow\ (^{gal}/_{day})}{Flow\ (^{gal}/_{day}) + 7Q10(^{gal}/_{day})}$$

Acute Water Quality Criteria (WQC_{Acute})

Metal	K_{PO}	α	f_D	Maximum effluent C_T (µg/L)	Instream C_D (µg/L)	WQC_{Acute} (µg/L)	Action needed?
Arsenic	4.80.E+05	-0.729	0.54	10.0	0.05	340.00	no
Cadmium	4.00.E+06	-1.131	0.247	7.0	0.01	0.87	no
Chromium III	3.36.E+06	-0.930	0.20	10.0	0.02	279.99	no
Chromium VI	3.36.E+06	-0.930	0.20	10.0	0.02	16.00	no
Copper	1.04.E+06	-0.744	0.36	5.2	0.02	5.93	no
Lead	2.80.E+06	-0.800	0.19	10.0	0.02	24.82	no
Mercury	2.91.E+06	-1.136	0.31	0.5	0.00	1.40	no
Nickel	4.90.E+05	-0.572	0.46	5.0	0.0	224.77	no
Zinc	1.25.E+06	-0.704	0.30	21.0	0.1	56.19	no

$$\text{Acute Dilution Factor} = \frac{1Q10\left(\frac{gal}{day}\right) - Flow\left(\frac{gal}{day}\right)}{Flow\left(\frac{gal}{day}\right)}$$

Chronic Water Quality Criteria ($WQC_{Chronic}$)

Metal	K_{PO}	α	f_D	Average effluent C_T (µg/L)	Instream C_D (µg/L)	$WQC_{Chronic}$ (µg/L)	Action needed?
Arsenic	4.80.E+05	-0.729	0.54	10.0	0.0	150.00	no
Cadmium	4.00.E+06	-1.131	0.247	7.0	0.0	0.13	no
Chromium III	3.36.E+06	-0.930	0.20	10.0	0.0	36.42	no
Chromium VI	3.36.E+06	0.930	0.20	10.0	0.0	11.00	no
Copper	1.04.E+06	-0.744	0.36	5.20	0.0	4.27	no
Lead	2.80.E+06	-0.800	0.19	10.0	0.0	0.97	no
Mercury	2.91.E+06	-1.136	0.31	0.5	0.0	0.012	no
Nickel	4.90.E+05	-0.572	0.46	5.00	0.0	224.77	no
Zinc	1.25.E+06	-0.704	0.30	21.0	0.0	56.65	no
Selenium	NA	NA	NA	5.0	0.0	5.00	no

$$f_D = \frac{1}{1 + K_{PO} \times TSS_{Instream}(mg/L)^{\alpha+1} \times 10^{-6}}$$

$$\text{Instream } C_D = \frac{\text{Effluent } C_T(mg/L) \times f_D}{DF} \quad mg/L$$

$$\text{Chronic Dilution Factor} = \frac{7Q10\left(\frac{gal}{day}\right) + Flow\left(\frac{gal}{day}\right)}{Flow\left(\frac{gal}{day}\right)}$$

Total Recoverable Effluent Limit

Metal	C_S (µg/L)	Chronic C_T (µg/L) 30-Day Avg	Chronic C_T (Kg/day) 30-Day Avg	Acute C_T (µg/L) Daily Max	Acute C_T (Kg/day) Daily Max
Arsenic	0.0	N/A	N/A	N/A	N/A
Cadmium	0.0	N/A	N/A	N/A	N/A
Chromium III	0.0	N/A	N/A	N/A	N/A
Chromium VI	0.0	N/A	N/A	N/A	N/A
Copper	0.0	N/A	N/A	N/A	N/A
Lead	0.0	N/A	N/A	N/A	N/A
Mercury	0.0	N/A	N/A	N/A	N/A
Nickel	0.0	N/A	N/A	N/A	N/A
Zinc	0.0	N/A	N/A	N/A	N/A
Selenium	0.0	N/A	N/A	--	--

(1) $$\text{Acute } C_T = \frac{\frac{WQC_{Acute}}{f_D} \times (Q_E + 1Q10) - (1Q10 \times C_S)}{Q_E}$$

$$\text{Chronic } C_T = \frac{\frac{WQC_{Chronic}}{f_D} \times (Q_E + 7Q10) - (7Q10 \times C_S)}{Q_E}$$

(2) $$\text{Acute } C_T = \frac{\frac{WQC_{Acute}}{f_D} \times (Q_E + 1Q10)}{Q_E}$$

$$\text{Chronic } C_T = \frac{\frac{WQC_{Chronic}}{f_D} \times (Q_E + 7Q10)}{Q_E}$$

NOTES:

(1) Chronic and acute total recoverable metal effluent concentration (C_T) from **EPA 823-B-96-007, June 1996, page 33**:

(2) Assuming background dissolved metal concentration (C_S) in the stream is 0 µg/L, equations above become:

NOTES:

*Water Quality Criteria (WQC) from State of Georgia Rules and Regulations 391-3-6 .03.

*If the calculated instream concentration is less than 50% of the instream water quality criteria, then the constinuent will be considered not to be present at levels of concern in the effluent and it will not be included in the permit.

*If the calculated instream concentration is 50% or more of the instream water quality criteria, then a permit limit for that constinuent will be placed in the permit.

End of report

Reasonable Potential Analysis for Freshwater

Permit Name: Georgia Power Company Plant Mitchell
NPDES Permit No. GA0001465 (outfall 01E)

Stream Data:

Receiving stream Hardness:	42	mg/L
Upstream TSS:	8	mg/l
7Q10:	923.00	ft^3/s
	596,509,056	gal/day
1Q10:	772.00	ft^3/s
	498,921,984	gal/day

Effluent Data:

Flow	11,520,000	gal/day
TSS	5.00	mg/L

Instream TSS:	7.94	mg/L
Acute Dilution factor:	44.31	
Chronic Dilution factor:	52.78	

Water Quality Criteria:

Mean annual streamflow at discharge:	5,899.00	ft^3/s
	3,812,358,528	gal/day
Dilution factor:	331.934	
IWC	1.894646298	

$$IWC = \frac{Flow\ (^{gal}/_{day})}{Flow\ (^{gal}/_{day}) + 7Q10(^{gal}/_{day})}$$

Acute Water Quality Criteria (WQC_{Acute})

Metal	K_{PO}	α	f_D	Maximum effluent C_T (µg/L)	Instream C_D (µg/L)	WQC_{Acute} (µg/L)	Action needed?
Arsenic	4.80.E+05	-0.729	0.00	0.0	0.00	340.00	no
Cadmium	4.00.E+06	-1.131	0.000	0.0	0.00	0.87	no
Chromium III	3.36.E+06	-0.930	0.00	0.0	0.00	279.99	no
Chromium VI	3.36.E+06	-0.930	0.00	0.0	0.00	16.00	no
Copper	1.04.E+06	-0.744	0.00	0.0	0.00	5.93	no
Lead	2.80.E+06	-0.800	0.00	0.0	0.00	24.82	no
Mercury	2.91.E+06	-1.136	0.00	0.0	0.00	1.40	no
Nickel	4.90.E+05	-0.572	0.00	0.0	0.0	224.77	no
Zinc	1.25.E+06	-0.704	0.00	0.0	0.0	56.19	no

$$\text{Acute Dilution Factor} = \frac{1Q10\left(\frac{gal}{day}\right) + Flow\left(\frac{gal}{day}\right)}{Flow\left(\frac{gal}{day}\right)}$$

Chronic Water Quality Criteria ($WQC_{Chronic}$)

Metal	K_{PO}	α	f_D	Average effluent C_T (µg/L)	Instream C_D (µg/L)	$WQC_{Chronic}$ (µg/L)	Action needed?
Arsenic	4.80.E+05	-0.729	0.00	0.0	0.0	150.00	no
Cadmium	4.00.E+06	-1.131	0.000	0.0	0.0	0.13	no
Chromium III	3.36.E+06	-0.930	0.00	0.0	0.0	36.42	no
Chromium VI	3.36.E+06	-0.930	0.00	0.0	0.0	11.00	no
Copper	1.04.E+06	-0.744	0.00	0.00	0.0	4.27	no
Lead	2.80.E+06	-0.800	0.00	0.0	0.0	0.97	no
Mercury	2.91.E+06	-1.136	0.31	0.0	0.0	0.012	no
Nickel	4.90.E+05	-0.572	0.00	0.00	0.0	224.77	no
Zinc	1.25.E+06	-0.704	0.00	0.0	0.0	56.65	no
Selenium	NA	NA	NA	0.0	0.0	5.00	no

$$f_D = \frac{1}{1 + K_{PO} \times TSS_{Instream}(mg/L)^{(1+\alpha)} \times 10^{-6}}$$

$$\text{Instream } C_D = \frac{\text{Effluent } C_T(mg/L) \times f_D}{DF} \quad mg/L$$

$$\text{Chronic Dilution Factor} = \frac{7Q10\left(\frac{gal}{day}\right) + Flow\left(\frac{gal}{day}\right)}{Flow\left(\frac{gal}{day}\right)}$$

Total Recoverable Effluent Limit

Metal	C_S (µg/L)	Chronic C_T (µg/l) 30-Day Avg	Chronic C_T (Kg/day) 30-Day Avg	Acute C_T (µg/L) Daily Max	Acute C_T (Kg/day) Daily Max
Arsenic	0.0	N/A	N/A	N/A	N/A
Cadmium	0.0	N/A	N/A	N/A	N/A
Chromium III	0.0	N/A	N/A	N/A	N/A
Chromium VI	0.0	N/A	N/A	N/A	N/A
Copper	0.0	N/A	N/A	N/A	N/A
Lead	0.0	N/A	N/A	N/A	N/A
Mercury	0.0	N/A	N/A	N/A	N/A
Nickel	0.0	N/A	N/A	N/A	N/A
Zinc	0.0	N/A	N/A	N/A	N/A
Selenium	0.0	N/A	N/A	–	–

(1)

$$\text{Acute } C_T = \frac{\frac{WQC_{Acute}}{f_D} \times (Q_E + 1Q10) - (1Q10 \times C_S)}{Q_E}$$

$$\text{Chronic } C_T = \frac{\frac{WQC_{Chronic}}{f_D} \times (Q_E + 7Q10) - (7Q10 \times C_S)}{Q_E}$$

(2)

$$\text{Acute } C_T = \frac{\frac{WQC_{Acute}}{f_D} \times (Q_E + 1Q10)}{Q_E}$$

$$\text{Chronic } C_T = \frac{\frac{WQC_{Chronic}}{f_D} \times (Q_E + 7Q10)}{Q_E}$$

NOTES:

(1) Chronic and acute total recoverable metal effluent concentration (C_T) from **EPA 823-B-96-007, June 1996, page 33**:

(2) Assuming background dissolved metal concentration (C_S) in the stream is 0 µg/L, equations above become:

NOTES:

*Water Quality Criteria (WQC) from State of Georgia Rules and Regulations 391-3-6-.03.

*If the calculated instream concentration is less than 50% of the instream water quality criteria, then the constinuent will be considered not to be present at levels of concern in the effluent and it will not be included in the permit.

*If the calculated instream concentration is 50% or more of the instream water quality criteria, then a permit limit for that constinuent will be placed in the permit.

End of report

Reasonable Potential Analysis for Freshwater

Permit Name: Georgia Power Company Plant Mitchell

NPDES Permit No. GA0001465 (outfall 04)

Stream Data:

Receiving stream Hardness:	42	mg/L
Upstream TSS:	8	mg/L
7Q10:	923.00	ft^3/s
	596,509,056	gal/day
1Q10:	772.00	ft^3/s
	498,921,984	gal/day

Effluent Data:

Flow	33,120,000	gal/day
TSS	5.00	mg/L
Instream TSS:	7.84	mg/L
Acute Dilution factor:	16.06	
Chronic Dilution factor:	19.01	

Water Quality Criteria:

Mean annual streamflow at discharge:	5,899.00	ft^3/s
	3,812,358,528	gal/day
Dilution factor:	116.107	
IWC	5.260240071	

$$IWC = \frac{Flow\ (^{gal}/_{day})}{Flow\ (^{gal}/_{day}) + 7Q10(^{gal}/_{day})}$$

Acute Water Quality Criteria (WQC_{Acute})

Metal	K_{PO}	α	f_D	Maximum effluent C_T (µg/L)	Instream C_D (µg/L)	WQC_{Acute} (µg/l)	Action needed?
Arsenic	4.80.E+05	-0.729	0.00	0.0	0.00	340.00	no
Cadmium	4.00.E+06	1.131	0.000	0.0	0.00	0.87	no
Chromium III	3.36.E+06	-0.930	0.00	0.0	0.00	279.99	no
Chromium VI	3.36.E+06	-0.930	0.00	0.0	0.00	16.00	no
Copper	1.04.E+06	-0.744	0.00	0.0	0.00	5.93	no
Lead	2.80.E+06	-0.800	0.00	0.0	0.00	24.82	no
Mercury	2.91.E+06	1.136	0.00	0.0	0.00	1.40	no
Nickel	4.90.E+05	-0.572	0.00	0.0	0.0	224.77	no
Zinc	1.25.E+06	-0.704	0.00	0.0	0.0	56.19	no

$$\text{Acute Dilution Factor} = \frac{1Q10\left(\frac{gal}{day}\right) + Flow\left(\frac{gal}{day}\right)}{Flow\left(\frac{gal}{day}\right)}$$

Chronic Water Quality Criteria ($WQC_{Chronic}$)

Metal	K_{PO}	α	f_D	Average effluent C_T (µg/L)	Instream C_D (µg/L)	$WQC_{Chronic}$ (µg/L)	Action needed?
Arsenic	4.80.E+05	-0.729	0.00	0.0	0.0	150.00	no
Cadmium	4.00.E+06	-1.131	0.000	0.0	0.0	0.13	no
Chromium III	3.36.E+06	-0.930	0.00	0.0	0.0	36.42	no
Chromium VI	3.36.E+06	-0.930	0.00	0.0	0.0	11.00	no
Copper	1.04.E+06	-0.744	0.00	0.00	0.0	4.27	no
Lead	2.80.E+06	-0.800	0.00	0.0	0.0	0.97	no
Mercury	2.91.E+06	-1.136	0.31	0.0	0.0	0.012	no
Nickel	4.90.E+05	-0.572	0.00	0.00	0.0	224.77	no
Zinc	1.25.E+06	-0.704	0.00	0.0	0.0	56.65	no
Selenium	NA	NA	NA	0.0	0.0	5.00	no

$$f_D = \frac{1}{1 + K_{PO} \times TSS_{Instream}(mg/L)^{(1-\alpha)} \times 10^{-6}}$$

$$\text{Instream } C_D = \frac{\text{Effluent } C_T(mg/L) \times f_D}{DF} \quad mg/L$$

$$\text{Chronic Dilution Factor} = \frac{7Q10\left(\frac{gal}{day}\right) + Flow\left(\frac{gal}{day}\right)}{Flow\left(\frac{gal}{day}\right)}$$

Total Recoverable Effluent Limit

Metal	C_s (µg/L)	Chronic C_T (µg/L) 30-Day Avg	Chronic C_T (Kg/day) 30-Day Avg	Acute C_T (µg/L) Daily Max	Acute C_T (Kg/day) Daily Max
Arsenic	0.0	N/A	N/A	N/A	N/A
Cadmium	0.0	N/A	N/A	N/A	N/A
Chromium III	0.0	N/A	N/A	N/A	N/A
Chromium VI	0.0	N/A	N/A	N/A	N/A
Copper	0.0	N/A	N/A	N/A	N/A
Lead	0.0	N/A	N/A	N/A	N/A
Mercury	0.0	N/A	N/A	N/A	N/A
Nickel	0.0	N/A	N/A	N/A	N/A
Zinc	0.0	N/A	N/A	N/A	N/A
Selenium	0.0	N/A	N/A	--	--

(1) $$\text{Acute } C_T = \frac{\frac{WQC_{Acute}}{f_D} \times (Q_E + 1Q10) - (1Q10 \times C_S)}{Q_E}$$

$$\text{Chronic } C_T = \frac{\frac{WQC_{Chronic}}{f_D} \times (Q_E + 7Q10) - (7Q10 \times C_S)}{Q_E}$$

(2) $$\text{Acute } C_T = \frac{\frac{WQC_{Acute}}{f_D} \times (Q_E + 1Q10)}{Q_E}$$

$$\text{Chronic } C_T = \frac{\frac{WQC_{Chronic}}{f_D} \times (Q_E + 7Q10)}{Q_E}$$

NOTES:

(1) Chronic and acute total recoverable metal effluent concentration (C_T) from **EPA 823-B-96-007, June 1996, page 33**:

(2) Assuming background dissolved metal concentration (C_S) in the stream is 0 µg/L, equations above become:

NOTES:

*Water Quality Criteria (WQC) from State of Georgia Rules and Regulations 391-3-6-.03.

*If the calculated instream concentration is less than 50% of the instream water quality criteria, then the constinuent will be considered not to be present at levels of concern in the effluent and it will not be included in the permit

*If the calculated instream concentration is 50% or more of the instream water quality criteria, then a permit limit for that constinuent will be placed in the permit.

End of report

COMMENTS RECEIVED	EPD RESPONSE
Sampling to be performed during the dewatering operations should be a least weekly for the first few weeks and more often as the ash pond levels drops closer to the ash layer. This will ensure that instream water quality standards are not exceeded. Parameters should include pollutants common to ash pond discharges, such as: turbidity, TDS, Cu, Se, As, Hg, Cr, Pb, Cd, Zn, Ni, and hardness.	The draft permit already included EPA's list of pollutants to be monitored. Additionally, the draft permit had already expanded on the EPA proposed list of pollutants to include flow, pH, oil and grease, biochemical oxygen demand,$_{5\text{-day}}$, total suspended solids, total residual chlorine, ammonia (as NH_3), total kjeldahl nitrogen, organic nitrogen, phosphorus, and ortho-phosphorus. EPD believes if the treatment system is operated appropriately and the continuous inline flow, pH, and turbidity effluent targets which will be monitored continuously prior to discharge are maintained, there should not be a need to increase the sampling frequency due to the automatic shutoff and automatic return of the treated wastewater back to the coals ash pond or head of the treatment plant. However, EPD does appreciate and understand the concerns and also believes that increased sampling will aide in our oversight of the operability of the treatment plant to ensure the discharge does not cause or contribute to an instream water quality violation, hence EPD has increased the effluent sampling frequency from 2/month to 1/week and the instream sampling from 1/month to 2/month in Part III.C.2 of the proposed permit.
To ensure the integrity of the pond structure is not jeopardized if the pond water is drawn down too quickly, the permit should specify the drawdown	EPD has included language Part III.C.2, Coal Ash Pond Dewatering Plan, of the proposed permit requiring the permittee to submit

COMMENTS RECEIVED	EPD RESPONSE
rate during dewatering operations. We recommend you confer with Georgia's Dam Safety Department to determine the maximum draw down rate to ensure stability during releases.	information regarding safe draw down rates to ensure the integrity of the ponds.
For the emergency ash pond outfalls (01E and 004), the permit should specify the rainfall event for which the discharges will be authorized. The permit application states that the emergency ponds are designed to retain the 100Y24H storm, so we recommend the permit only allow discharges from these ponds during that storm events. Monitoring during discharge should include metals/pollutants commonly found in ash pond effluents: TDS, Cu, Se, As, Hg, Cr, Pb, Cd, Zn, Ni, and hardness.	EPD has added language to specify the conditions when it may be appropriate to discharge from the emergency ash ponds (outfall nos. 01B, 01E and 04). EPD believes there are several possible scenarios of which there should be discharges from the emergency outfalls, (1) a rainfall event that meets the 100 year, 24 hour storm event criteria, (2) several continuous or intermittent days of rainfall that may cause harm or jeopardize the stability of the impoundments and (3) unforeseen catastrophic weather events. EPD believes restricting the use of the emergency outfalls to only a 100 year, 24 hour storm event is unreasonable and too restrictive due to the specific types of weather events that can and have occurred in Georgia. EPD has included the following language in the proposed permit, "Discharges from this outfall shall consist of emergency overflows only. There shall be no discharge from the outfall except when an emergency presents, such as excessive rainfall that meets the 100 year, 24 hour storm water criteria, several continuous or intermittent days of excessive rainfall that may adversely impact the stability of the impoundments or unforeseen catastrophic weather events." Additionally, EPD has added monitoring requirements for total dissolved solids, copper, total, selenium, total, arsenic, total,

COMMENTS RECEIVED	EPD RESPONSE
	mercury, total, chromium, total, lead, total, cadmium, zinc, total, nickel, total and hardness, applicable only when there is a discharge from the emergency outfalls.
Sampling during an emergency discharge should be at least once daily during the first hour of the discharge (or some other specified time frame).	EPD has revised the sampling frequency from "2/month" to "once per day when discharging."
For compliance purposes, the permit should specify how flow will be estimated for all outfalls.	EPD has included footnotes to specify how "estimated" and "calculated" may be determined. The following language has been added, "best engineering practices or pump capacity/run times will be used to estimate the flow, and the specific methodology will be documented on site."
The permit requires the permittee to perform routine inspections of the dike walls/berm; however, because there may be seeps which occur below the dike berms, we recommend the plan also require inspections for seepages from the ash pond which may be hydrologically connected to waters of the State. In which case, such discharges would need to be covered under an NPDES permit.	To date, EPD does not have any information indicating there are currently any seeps which occur below the dike berms at Plant Mitchell, nor does EPD have information indicating that seeps, that do not currently exist, are hydrologically connected to waters of the State. The inclusion of the routine inspections of the dike walls/berm, etc. is to ensure there are routine inspections of the entire coal ash pond impoundments. At this time, based on current information, EPD does not believe additional language is necessary when there is currently no indication of seeps present. If during the permit term EPD believes there are unpermitted

COMMENTS RECEIVED	EPD RESPONSE
	discharges to waters of the State, EPD will take appropriate actions.

Address List for the Response to Comments
Georgia Power Company Plant Mitchell
Permit No. GA0001465

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U.S. EPA Region IV
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(b)(6) Personal Privacy

Public Comments and EPD Responses on Draft NPDES Permit
Georgia Power Company- Plant Mitchell Permit No. GA0001465

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Due to the volume of comments received and the number of topics covered in a comment, EPD has summarized and grouped comments together based on the topic.

Acronyms

BAT – Best Available Technology Economically Achievable
BCT – Best Conventional Pollutant Control Technology
BPT – Best Practicable Control Technology Currently Available
CFR – Code of Federal Regulations
CCR – Coal Combustion Residual
ELG – Effluent Limit Guideline for Steam Electric Power Generating Facilities, Part 40 CFR Part 423
EPD – Environmental Protection Division
EPA – Environmental Protection Agency
Permittee – Georgia Power Company – Plant Mitchell
RCRA –Resource Conservation and Recovery Act
RPA – Reasonable Potential Analysis
Rules - Georgia Rules and Regulations for the Water Quality Control Act
TBEL- Technology Based Effluent Limit
WQBEL- Water Quality Based Effluent Limit
WQS – State of GA Water Quality Standards

COMMENTS RECEIVED	EPD RESPONSE
General Comments	
1. It is imperative that the citizens health and well-being be place above any consideration for cost to remediate this problem to the fullest. This is a cost of doing business to Georgia Power and whatever the cost of full and complete removal and remediation is then so be it. I have concerns about the risk of additional toxic chemicals entering the Flint River and the potential health effects that could ensue if this occurs. Coal ash is recognized as a major source of toxic elements that can persist for years in the environment. Coal ash contains Lead, Cadmium, Chromium, Arsenic, Mercury, Boron, Molybdenum, Thallium and Silica all of which have known toxicities to humans and the environment. These elements have been linked to neurologic impairment, kidney disease, developmental delays, kidney, skin and lung cancers, lung diseases, intestinal impairment, bone weakness and memory loss. These elements are bio-pervasive and bio accumulate so they represent not only a current threat if contacted but can affect children and unborn children. I implore you to apply the most stringent standard to assure water safety for water entering our Flint River as a result of the dewatering of these Coal Ash ponds. I am requesting that these standards be determined BEFORE permits are granted and made available for public review and comment. 2. I know Southern Company is working on closing all of its Coal Ash	EPD is responsible for issuing protective, legal and enforceable permits in accordance with the applicable Rules. A reasonable potential analysis was conducted on the pollutant data submitted in the EPA Form 1 and Form 2C Applications and along with other supporting documents. The results of the RPA for the pollutants of concern, identified in Part III.C.2 of the permit, indicate there is no reasonable potential to cause or contribute to an instream WQS violation; hence water quality based effluent limits for the pollutants of concern are not needed in the permit for the applicable outfalls. The development of TBELs does take into account the cost of the best available technology; however the development of WQBELs does not take cost into account. All permits issued must and are protective of the applicable WQS. All documents transmitted or received by EPD are available for review through the Georgia Open Records Act, O.C.G.A § 50-18-70. Upon final approval of the Coal Ash Pond Dewatering Plan, the permittee will monitor the effluent and the stream for pollutants of concern and provide the results to EPD for evaluation. EPD will evaluate the data to determine if a reasonable potential exists and

COMMENTS RECEIVED	EPD RESPONSE
ponds. However, I am concerned that Plant Mitchell may be one of the last plans Coal Ash producing plants to have its coal ash neutralized/retired. Please check and assure as assure the public it is currently safe. Please help keep the flint safe for my children and grandchildren by having regulations that make run off water safe for the flint. We use the flint all the time swimming, fishing and boating. I am from fayette county and also have property on the Flint in Meriweather and Pike counties. We use the River in many locations. 3. I write this title as it seems with all the abbreviations the goals and stated purpose for being have may be forgotten. Upcoming is the public input on the cleaning up of the coal ash ponds at Plant Mitchell. I regret that I cannot make the meeting in Albany on May 4th, but I do want my thoughts on further pollution registered. I do not think this waste should be allowed into the Flint River. Please make those who profited from this pay for the safe removal so that no pollution may harm the river and the people and the natural resources. I have read, which I cannot believe, that EPD draft permit is not protective of the Flint and thereby those downstream and is not open for the public to read. Before the EPD prepares a final draft permit, it needs to be open to full public assess. 4. The draft permit does not provide concentration limits for heavy metals. 5. Poorly regulated waters can cause harm to the health of people, the economy and the ecosystems downstream. 6. The concern of the EPD as it develops a permit should not be cost.	take appropriate actions to ensure the discharge does not cause or contribute to WQ violations.

COMMENTS RECEIVED	EPD RESPONSE
7. As a regular Flint River boater, fisher, and canoeist, I want to register grave concern about the discharge of the wastewater that will be produced from the de-watering process that will be used as a first step in disposing of the Plant Mitchell coal ash. I strongly urge Georgia EPD to develop *strong, solid, and cautious criteria* regarding and regulating coal ash wastewater toxins, heavy metals and other pollutants BEFORE issuing a discharge permit for Plant Mitchell or any other coal powered electric plant in the state of Georgia. The Flint River (or any other Georgia stream) should NOT be used as a convenient sewer for the discharge produced by de-watering coal ash ponds without such criteria in place. While it is true that Georgia Power has likely adhered to coal ash rules and regulations that are already in place, the proper protections from heavy metals, toxins, and other pollutants produced by coal ash are not in place OR strong enough. The coal ash de-watering water MUST be free of pollutants before a discharge permit is granted, but this will only be done if the Georgia EPD produces the proper criteria for such a process - that is open and influenced by public and factual science based facts. My genuine expectation is that EPD will act in the best interest of public and environmental health, NOT the best financial interest of power companies. Keep us safe.	
I write as a result of concerns regarding the "dewatering" and removal of coal ash from ponds at Plant Mitchell on the Flint River near the Dougherty/Mitchell County line. The coal ash contained in these ponds is very toxic and could cause very dangerous contamination if allowed to enter the river through leeching or a flood during this process. We need rigorous rules, set in advance, to protect the river	EPD has evaluated the submitted permit application and supporting documentation and proposed a permit with appropriate effluent limits in accordance with the applicable Federal and State regulations ensuring the permit is legal, enforceable and protective of human health and the environment.

COMMENTS RECEIVED	EPD RESPONSE
and wildlife and, indeed, water sources for cities and counties downstream of the plant during this process. While the draft permit is NOT available to the public, attorneys for various interested groups have reviewed it and have determined that it does not protect those interests.	The draft permit is publicly available upon request to EPD. The draft permit was public noticed on March 31, 2017 by EPD, posted at the county courthouse and published in the Albany Herald on March 31, 2017 by the permittee. The public notice complied with all State and Federal requirements. All documents received, generated and transmitted to and from EPD are available upon request in accordance with the Georgia Open Records Act, O.C.G.A § 50-18-70.
1. I applaud Georgia Power for being a responsible corporate citizen to take on the cleanup of the site. However, ALL citizens are responsible for protecting the environment for ALL generations. The permitting helps reassure the public and gives Georgia Power specific guidelines to follow during the cleanup effort with EPD oversight, meaningful consequences if not properly followed, putting in place specific language to address the concerns before, during and after the cleanup effort. I urge the EPD to protect all of our state and particular the Flint river water shed during the cleanup effort of the Plant Mitchel Georgia Power plant site. 2. We appreciate Georgia Power following up to remove the ash from the banks in Flint River. 3. I hope EPD keeps this water clean, and I am willing to volunteer to help with monitoring if needed. 4. Thankful to Georgia Power for removing the ash out of flood plain.	Comment noted.

COMMENTS RECEIVED	EPD RESPONSE
5. I applaud Georgia Power for taking the steps here to mitigate the pollution potential at this plant site, but they need to do it correctly to prevent damaging discharges from happening and spoiling their good intentions.	
Landfill Disposal	
1. As I said in my comments at that hearing, I congratulate Georgia Power on closing Plant Mitchell, but we already have coal ash from TVA and from Florida in the landfill in Lowndes County Georgia where I live, but we don't want coal ash from Plant Mitchell in that landfill. 2. Because Georgia requires no special permit for a landfill to receive coal ash, there was not even any notice that it was received in the Pecan Row landfill, owned successively over time by Onyx, Veolia, Advanced Disposal Services, and ADS investors in New York City. We do know GA-EPD issued a variance to permit the landfill owners to spread coal ash on internal roads at the landfill site. That was a bad idea, since that landfill is a quarter mile uphill from the Withlacoochee River. 3. [We] do not want Plant Mitchell coal ash in any landfill in the Suwannee River Basin. That also applies to any other Georgia Power coal ash. Surely Georgia Power can find a place on its own property somewhere in the state of Georgia to safely dispose of the coal ash	The draft NPDES permit, proposed under the authority of the Clean Water Act, does not contain the regulatory authority to designate or control the final disposal of the coal ash. EPD's Land Protection Branch is responsible for oversight of landfills in Georgia including landfills that receive or contain coal ash.

COMMENTS RECEIVED	EPD RESPONSE
Georgia Power generated. 4. Georgia Power should not put its coal ash in Landfills located in the Suwannee River Basin or the Flint River Basin, and should store it somewhere on their own property.	
According to the Public Notice of March 31, 2017: *"An antidegradation analysis is conducted, as applicable, for new or expanded point source discharges that are proposed. The analysis evaluates whether allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located."* Coal ash in local landfills serves no economic or social development purpose.	The antidegradation analysis as stated in the public notice document is applicable for new or expanding point source discharges of treated effluent to waters of the State. This permit does not involve a new or expanding point source discharge to waters of the State.
Discharge Should Meet the Standards Already Imposed on Any Other Waste-Water Discharge	
1. [We] commend Georgia Power for planning to move Plant Mitchell's coal ash out of the Flint River floodplain, and in pointing out that GA-EPD should not be concerned with Southern Company's losses at Kemper Coal in Mississippi and at Plant Vogtle on the Savannah River. GA-EPD should be concerned with doing it right, and should put the entire [dewatering] plan, or as much as possible, in front of the public now. Indeed, any water coming out of that coal ash pond should be at least as clean as water coming out of a municipal wastewater treatment plant.	Upon receipt of the Coal Ash Dewatering Plan, it will be available for review, upon request, as are all documents submitted to EPD under the Georgia Open Records Act. Part III.C.2 of the draft permit requires the Coal Ash Pond Dewatering Plan to be submitted 90 days prior to beginning the dewatering activity. Upon approval of the Coal Ash Pond Dewatering Plan, the Plan will be posted to EPD's website at the following link: https://epd.georgia.gov/coal-ash-pond-dewatering-plans

COMMENTS RECEIVED	EPD RESPONSE
2. Any coal ash dewatering plan for Plant Mitchell (or any other Georgia Power plant) should result in wastewater clean enough to go into the nearby waterways; at least as clean as municipal wastewater. 3. The Flint River is a critical natural resource in GA. GA EPD must write a permit that is at least as protective of the Flint for heavy metal pollutants as a standard municipal permit for a wastewater treatment plant. It only makes good sense. 4. PLEASE write a permit that is at least as protective of the Flint for heavy metal pollutants as a standard municipal permit for a wastewater treatment plant. If we as a state think that these toxins should be kept from city and county discharges, they should also be restricted from coal ash pond discharges. 5. The current draft does not provide protections even equal to normal city and county use permits, much less protect the public from discharges of the type that would come from sources that include exposure to coal ash. Please provide real protections to those people and wildlife downstream from this extreme hazard. 6. I understand that you will shortly be considering a renewal of the permit which will allow Georgia Power to "dewater" its coal-ash ponds at Plant Mitchell. I feel it would be totally inappropriate to blandly renew this permit with no defined standards for allowable discharge pollutants as prerequisite to its renewal. At the least, I believe allowable discharge should meet the standards already imposed on any other waste-water discharge facilities along any of Georgia's streams and rivers.	NPDES Permit applications and supporting documentation from an industrial discharge and a municipal wastewater treatment system are evaluated using a similar review process and applicable WQS for the specific receiving water body. This is to ensure that all discharges authorized under an NPDES permit are protective of waters of the Sate. EPD has evaluated the submitted permit application and supporting documentation and proposed a permit with appropriate effluent limits in accordance with the applicable Federal and State regulations ensuring the permit is legal, enforceable and protective of human health and the environment. Industrial and municipal wastewater discharges must have the same levels of water quality protection.

COMMENTS RECEIVED	EPD RESPONSE
7. The Flint River should be held to the same standards as already established and well known for municipal wastewater supporting high quality flows in many Georgia rivers. Any lowered standards or allowed degradation objectives for treatment and discharge of water from these and other coal ash ponds carries the threat of increased heavy metals and other pollutants in the river with their attendant adverse effects on most, if not all, uses of the river and its waters. Please uphold these strongest standards while writing the regulations for discharge of water from ash ponds of Plant Mitchell. Thank you for implementing these needed stringent requirements in your processing of this permit	
Coal Ash Pond Dewatering Plan	
The draft permit from EPD does detail the information we were required to provide the EPD in the form of a dewatering plan in advance of the dewatering activities. Georgia Power will not proceed with dewatering activities until EPD has approved it. The permit is more stringent in that regard and Georgia Power does support the draft permit.	Comment Noted.
There is no specific language in the permit currently for Heavy Metals, only language for a plan and monitoring practices, but no specific limits. Specific limits and language for heavy metals from the dewatering process should be included in the reissued permit.	Part II.C.2 of the draft permit requires the permittee to submit a Coal Ash Pond Dewatering Plan that includes effluent and instream sampling for heavy metals in addition to other pollutants of concern. EPD will evaluate the submitted data and if reasonable potential exists, the permit will be reopened and an effluent limit

COMMENTS RECEIVED	EPD RESPONSE
	for the applicable pollutant of concern will be added.
The public deserves to see the de-watering plan before the treated waste is released through such plan.	The approved Coal Ash Dewatering Plans for GA Power Company's Plant McManus and Plant McDonough are available on our website at the following address: https://epd.georgia.gov/coal-ash-pond-dewatering-plans EPD expects the Coal Ash Dewatering Plan for GA Power Company's Plant Mitchell to be similar. In response to comments received, EPD is increasing the effluent and instream sampling frequency in the proposed permit.
Hope to see [a protective dewatering plan] on the EPD website soon.	Upon approval, EPD will post the Coal Ash Pond Dewatering Plan to our website at the following address: https://epd.georgia.gov/coal-ash-pond-dewatering-plans
The Draft Permit's effluent limitations are not sufficient to cover future dewatering discharges, which result from a fundamentally different activity than the passive, gravity-based settling treatment method contemplated by the Draft Permit and underlying application.	The draft permit contains both effluent limits sufficient to cover the current and future dewatering activities, which does not result from a fundamentally different activity (see the Fact Sheet pgs. 14-15 and Appendix A for further discussion regarding the discharge of "legacy wastewater"). EPD approved GA Power Company's Dewatering Plans for Plant McManus and Plant McDonough on January 10, 2017. Both of these facilities employ similar types of wastewater treatment

COMMENTS RECEIVED	EPD RESPONSE
	technologies and perform effluent and instream monitoring to ensure there is no reasonable potential to cause or contribute to instream WQS violations of their respective receiving water bodies. EPD evaluates the data received on a monthly basis. To date, there have been no indications that the discharges from the coal ash ponds Plant McManus and Plant McDonough have caused or contributed to an instream WQS for their respective receiving waterbodies. EPD believes that as long as similar and sufficient types of wastewater treatment technologies are employed at Plant Mitchell, the proposed NPDES permit limits are protective and sufficient to cover the future dewatering discharges.
1. EPD should evaluate the current quality of the water in the coal ash ponds to determine the treatment standards to which the permit should mandate. 2. GA Power or GA-EPD must have or should have already sampled water quality in and around the existing coal ash ponds, especially in the interstitial spaces, and that data should be considered in the permit process. It should be revealed to the public so that independent assessments of the risks posed by the proposed wastewater discharges can be made.	Prior to commencing dewatering activities, the permittee will submit a Coal Ash Dewatering Plan for review. The Plan will contain a wastewater treatment system to ensure the effluent discharge does not cause or contribute to instream water quality violations. To design and configure a treatment system, the permittee will have to sample the wastewater in the existing ponds to ensure the chosen method of treatment is sufficient. EPD may request to review the influent data, if necessary, during our evaluation the Dewatering Plan.
[There is] an increasing tendency on the part of EPD to "favor" corporate entities merely by operating just within the letter of the law (or regulation, or policy) and almost never in the spirit of protection of	The draft NPDES permit complies with the applicable Federal and State regulations ensuring the permit is legal, enforceable and protective of human health and the environment.

COMMENTS RECEIVED	EPD RESPONSE
rivers and watersheds from actions by corporations known to produce pollutants. Your current announcement is that the Plant Mitchell Coal Ash permit will initially carry NO protection from toxic discharge for the Flint River and tributaries, but EPD "might" cover that in its later plan, which will not be available to the public. Such action is unacceptable, no matter what "legal umbrella" EPD hides under.	EPD has evaluated the submitted permit application and supporting documentation and proposed a permit with appropriate effluent limits based on the applicable Effluent Limit Guideline and the reasonable potential analysis conducted on the pollutants of concern submitted in the application and other supporting documents. EPD understands that when the coal ash ponds are being dewatered there may be a change in the effluent characterization provided on the application, hence EPD is proactively requiring the permittee to submit a Coal Ash Dewatering Plan, in Part III.C.2 of the draft permit, for review and approval to ensure the effluent discharged to the Flint River is not significantly changed and will not cause or contribute to instream WQS violations. Upon approval, EPD will post the Coal Ash Pond Dewatering Plan to our website at the following address: https://epd.georgia.gov/coal-ash-pond-dewatering-plans
Request for Permit Modification	
Part III.C.2 of the Draft Permit improperly proposes to give Georgia Power *advance* authorization to discharge *all* of its impounded, coal ash-polluted wastewater—the accumulation of decades of on-site coal ash disposal—into the Flint River at some unspecified future date. The provisions contemplate that the wholesale emptying of the ponds'	EPD has evaluated the submitted permit application and supporting documentation and proposed a permit with appropriate effluent limits based on applicable Federal and State Regulations and the reasonable potential analysis conducted on the pollutants of concern submitted in the Form 2C permit application and other

COMMENTS RECEIVED	EPD RESPONSE
accumulated wastewater could occur without reopening the permit. The provisions would confer this advance blanket authorization even though Georgia Power did not in its application identify the complete release of impounded wastewater as an *operation* giving rise to discharges, nor did the Company identify any treatment method to address such wastestreams. Material changes to waste disposal practices, such as the complete draining of Plant Mitchell's coal ash waste ponds, require major permit modifications so that appropriate effluent limitations and other conditions can be imposed. The Draft Permit imposes just one condition on this fundamental change to how the ponds have historically been operated: Georgia Power must first submit a "Coal Ash Pond Dewatering Plan," which EPD will evaluate and may approve without undergoing public notice and comment as required by state and federal law.	supporting documents ensuring the permit is legal, enforceable and protective of human health and the environment. Upon issuance he permittee will be authorized to discharge treated wastewater from the permitted outfalls. The "wholesale" emptying of the coal ash ponds could potentially occur without reopening the permit, as long as the permittee complies with the NPDES permit.
1. With wholesale dewatering the threat from toxic coal ash pollutants increases exponentially. This is because dewatering requires both the pumping of wastewater from within lower portions of the water column and the mechanical extraction of interstitial pore water from within the coal ash itself. Such processes will re-suspend removed and settled wastes, and the pollutants contained within them. Unless handled appropriately, these dewatering activities will produce a higher volume and concentration of polluted wastewater compared to ordinary plant operations. 2. The draft permit reveals that Georgia Power has not submitted details concerning waste water treatment method of backwatering	EPD agrees there <u>may</u> be a potential for the concentration of pollutants discharged to increase during the dewatering activity using the current treatment system. EPD is requiring the permittee to submit a Coal Ash Dewatering Plan, in Part III.C.2 of the draft permit. The Coal Ash Dewatering Plan will allow EPD to review, comment and approve the proposed technologies the permittee believe are necessary to comply with the existing NPDES permit.

COMMENTS RECEIVED	EPD RESPONSE
1. Federal regulation, which is adopted and incorporated into Georgia's water quality control regulations, provides that "substantial *alterations* or *additions* to the permitted facility or activity (*including a change or changes* in the permittee's sludge use or *disposal practice*)" are cause for a permit modification. 40 C.F.R. § 122.62(a)(1) (emphasis added). Georgia law provides that EPD must determine whether a permit modification is necessary "*in accordance* with the provisions of Federal Regulations" ... "including, but not limited to, the enumerated causes listed in Federal Regulations, 40 C.F.R. [§] 122.62..." Ga. Comp. R. & Regs. 391-3-6-.06(12)(b) (emphasis added). 2. The draft permit enables EPD to decide for themselves that it is not necessary to reopen the permit to require better treatment technology or more advanced methods for treatment. 3. Engage the public in every step of the process of decommissioning coal ash ponds including the development of the permit discharge levels and then later the notification of the public downstream when wastewater is discharged.	EPD agrees that 40 CFR § 122.62 allows the director to determine if cause exists to modify or revoke a permit, and that in particular § 122.62(a)(1) states that a cause for modification may include "material and substantial alterations or additions to the permitted facility or activity . . . . ." (emphasis added). See also Ga. Comp. R. & Regs. r. 391-3-6-.06(12)(b). Part III.C.2 of the draft permit addresses the potential for dewatering of the coal ash ponds on site, including a permit condition that mandates that the permittee submit to EPD a Coal Ash Dewatering Plan no fewer than ninety (90) days before beginning dewatering activities. EPD will review and approve any such Coal Ash Dewatering Plan, and will post the approved plan on EPD's website for ease of access by the public. Accordingly, the draft permit already addresses the potential for dewatering of the onsite coal ash ponds. EPD therefore disagrees that dewatering of the coal ash ponds included in the permit are a "material and substantial" alteration to the permitted activities, justifying a cause to modify the permit prior to coal ash pond dewatering. If, however, during the permit term EPD ever believes cause exists to modify the permit, EPD may modify the permit in accordance with all applicable laws and rules.
EPA Region IV has made clear that ash pond dewatering activities must be treated as a major modifications. For example, last year, Gulf Power sought a minor modification of its NPDES permit from the Florida Department of Environmental Protection (Florida "DEP") to	EPA Region IV did not state that ash pond dewatering activities must be treated as a major modifications in there correspondence to FL DEP. EPD is not unilaterally declining to "open the permit to include applicable effluent limits to protect the receiving water

COMMENTS RECEIVED	EPD RESPONSE
authorize changes to the Scholz Electric Generating Plant's coal ash disposal and wastewater treatment practices in order to facilitate closure of its coal ash ponds at its Pensacola Florida power plant. Upon notice of the proposed "minor revision" of Gulf Power's NPDES permit to authorize such changes, EPA Region IV instructed the Florida DEP that EPA would consider Gulf Power's request as a "major modification" of the permit, because the utility's proposed alterations to its coal ash disposal and wastewater treatment practices did not fit the specifically enumerated situations qualifying for a "minor modification" of the plant's NPDES permit under 40 C.F.R. § 122.63. In doing so, EPA Region IV *rejected* Florida DEP's August 2016 determination that Gulf Power's proposed alterations to its coal ash disposal and wastewater treatment practices, intended to facilitate ash pond closure, could be accomplished by a "minor modification" of the Scholz Plant's NPDES permit. Rather, because the changes entailed alterations, additions and changes to waste disposal and wastewater treatment practices at Plant Scholz, the NPDES permit must undergo major permit modification subject to full public notice and comment prior to authorizing pollutant discharges under that permit. Because similar plant alterations, additions and changes to disposal practices will be necessary to fully dewater the ponds at Plant Mitchell, and because these changes are specifically enumerated as cause for major permit modification, EPD may not unilaterally decline to "open the permit to include applicable effluent limits to protect the receiving water body." By purporting to give EPD such authority, Part III.C.2 of the Draft Permit violates 40 C.F.R. § 122.62(a)(1) and must be stricken for that reason. *See* Ga. Comp. R. & Regs. 391-3-6-.06(12)(b) (requiring that permit provisions must be "in accordance with the	body." If during the permit term, EPD determines cause exists to modify the permit, EPD will reopen the permit in accordance with the applicable Rules. EPD has assessed the Gulf Power Scholz Electric Generating Plant's permit and determined that the situation is fundamentally different. Here EPD is renewing an existing NPDES permit, not modifying the permit as was the case in Florida.

COMMENTS RECEIVED	EPD RESPONSE
provisions of the Federal Regulations").	
Request to Establish TBELs	
1. EPA recently updated ELGs for steam electric power plants. 80 Fed. Reg. 67,838 (Nov. 3, 2015) (codified at 40 C.F.R. Pt. 423). The Draft Permit's effluent limitations remain subject to the far less stringent 1982-era ELGs for Outfall Nos. 01B, 1E and 04 for the now-retired Plant Mitchell. 2. The Draft Permit sets *no* technology-based effluent limits on the discharge of pollutant-laden wastewater from the lower portions of the ash ponds, which will require pumping or other mechanized draining in order for the discharges to occur. For sources constructed prior to the passage of the Federal Water Pollution Control Act of 1972, such as Plant Mitchell, discharges of pollutants must be eliminated or controlled through application of Best Available Technology ("BAT"). *See* 33 U.S.C. § 1311(b)(2)(A). In accordance with the Act's goal to eliminate all discharges of pollutants, BAT limits "shall require the elimination of discharges of all pollutants if the Administrator finds, on the basis of information available to him . . . that such elimination is technologically and economically achievable . . . ." 33 U.S.C. § 1311(b)(2)(A). 3. The draft permit does not reflect the technology based standards	The following is language from the Preamble to 40 CFR Part § 423 regarding the applicable TBELS for the discharge of "legacy wastewater, " "Under this rule, legacy wastewater must comply with specific BAT limitations, which EPA is setting equal to the previously promulgated BPT limitations on TSS in the discharge of fly ash transport water, bottom ash transport water, and low volume waste sources." Additionally, in Section 8.3.8 of the "Technical Development Document for Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category," EPA-821-R-15-007, dated September 2015, it states the following "For purposes of the BAT limitations in this rule, EPA uses the term "legacy wastewater" to refer to FGD wastewater, fly ash transport water, bottom ash transport water, FGMC wastewater, or gasification waste water generated prior to the date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023 (see Section 8.3.7).Under this rule, legacy wastewater must comply with specific BAT limitations, which EPA is setting equal to the previously promulgated BPT limitations on TSS in the discharge of

COMMENTS RECEIVED	EPD RESPONSE
specifically for dewatering.	fly ash transport water, bottom ash transport water, and low volume waste sources." Since the draft permit was placed on public notice, EPA has subsequently announced its decision to reconsider the final rule's effective date of November 1, 2018 and administratively stay compliance dates that have not yet passed. See EPA April 12, 2017 Notice, delay of compliance deadlines. Docket ID No. EPA-HQ-OW-2009-0819, RIN 2040-AF14. The stay of the compliance dates does not affect EPA's BAT determination for discharge of treated wastewater from coal ash ponds. See pages 14-15 and Appendix A of the Fact Sheet for further discussions regarding the EPA established BAT technology based effluent limit for the discharge of treated legacy wastewater from the coal ash ponds. The draft permit includes the applicable TBELs required under 40 CFR Part § 423.
1. Part III.C.2 of the draft Permit must be amended by inserting the following sentence to read as follows (hereinafter, the "Dewatering Condition"): *EPD will evaluate the submitted data and act in accordance with the requirements of EPA's regulations for permit modification under 40 C.F.R. § 122.62(a), to develop appropriate effluent limitations and other conditions applicable to discharges comprising coal ash pond dewatering. EPD will develop appropriate water-quality based effluent*	Comment noted. EPD does not believe this language is necessary and has not included the suggested language.

COMMENTS RECEIVED	EPD RESPONSE
limitations or technology-based effluent limitations in accordance with 33 U.S.C. § 1311(b)(1)(C), 40 C.F.R. § 125.3(g); Ga. Comp. R. & Regs. 391-3-6-.06(4)(a)(1), (a)(10), (d). No discharge of effluent associated with the large-scale decanting or dewatering of the ash ponds for closure purposes shall be authorized under this Permit prior to modification of this Permit in accordance with this Paragraph 2. 2. Part II.A.1.c of the draft Permit must be amended by inserting the following language underlined below to read: Following notice in paragraph a. or b. of this condition, the permit may be modified <u>in accordance with 40 C.F.R. § 122.62 and any other applicable requirements imposed by law</u>. The permittee shall not make any changes, or conduct any activities, requiring notification in paragraph a. or b. of this condition without approval from EPD.	
EPD must use its Best Professional Judgment to establish TBELs for ash pond dewatering discharges. EPD's development of appropriate TBELs must occur in full compliance with the Clean Water Act's notice and public comment provisions, enabling not only interested members of the public, but EPA, the U.S. Fish and Wildlife Service and citizens of neighboring states to participate in this important agency determination. 33 U.S.C. §§ 1251(e).	EPD is not required to develop a TBEL when a federal categorical ELG has already developed a one.
1. Georgia's NPDES permit regulations provide that "[p]ublic notice of every complete permit application will be prepared and circulated in a manner designated to inform interested and potentially interested persons of the proposed discharge and the proposed determination to	In April 2015, EPA published final regulations, known as the "CCR Rule" to address the disposal of coal combustion residuals stored in landfills and ponds.

COMMENTS RECEIVED	EPD RESPONSE
issue or deny a permit for the proposed discharge." Ga. Comp. R. & Regs. 391-3-6-.06(7)(b). The proposed discharges at issue here are only those identified in Georgia Power's NPDES permit application. The application does not identify or contemplate the complete pumping out of the coal ash ponds at Plant Mitchell. Upon receipt of Notice from Georgia Power of the proposed dewatering activities (which entail a material change in the waste generation and disposal practices), EPD must "inform interested and potentially interested persons of the *proposed* [dewatering] *discharge* and the proposed determination to issue or deny a permit for the *proposed* [dewatering] *discharge*." *See id.* (emphasis added). Hence, the approach envisioned by Part III.C.2 of the Draft Permit is manifestly improper, because it contemplates allowing dewatering to go forward without public notice and comment, and without a BPJ determination by EPD. Ga. Comp. R. & Regs. 391-3-6-.06(7)(b), (12)(b); 40 C.F.R. § 122.62(a).	EPA recently updated ELGs for steam electric power plants. 80 Fed. Reg. 67,838 (Nov. 3, 2015) (codified at 40 C.F.R. Pt. 423). The permit application evaluated by EPD provided the necessary information and did "contemplate" the dewatering of the coal ash ponds to comply with the CCR and Revised Steam Electric Rule. At the time the draft permit was developed and placed on public notice, there was a requirement to eliminate dry ash and bottom ash wastestreams within a specified period of time and close the coal ash ponds. The inclusion of the Permit Condition in Part III.C.2 Coal Ash Pond Dewatering Plan, specifically "contemplates" coal ash pond dewatering and the draft permit was then placed on public notice in accordance with the Rules.
The Draft Permit erroneously omits the mandatory TBEL analysis from Part III.C.2 by only addressing water quality impacts stemming from dewatering discharges. Under the Clean Water Act, effluent limits imposed in a NPDES permit must reflect evaluation of *both* the applicable TBELs as well as water quality based effluent limitations ("WQBELs"), applying the more stringent of the two in the final permit. The final sentence within Part III.C.2 of the Draft Permit erroneously omits EPD's mandatory determination of appropriate TBELs under the BAT standard using its BPJ, focusing solely upon water quality based	EPD did not focus solely on water quality based impacts. EPD has already applied the "legacy wastewater" BAT TBELS. As stated above in the "EPD Response," EPA developed a BAT TBEL for the discharge of "legacy wastewater" and it has been applied in the proposed permit in accordance with the Rules. The language in Part III.C.2 of the permit does solely focus upon WQBELs to ensure the treated discharge from the coal ash ponds does not cause or contribute to instream violations of the WQS.

COMMENTS RECEIVED	EPD RESPONSE
impacts stemming from future dewatering discharges. The WQBEL-only inquiry envisioned by Part III.C.2 is improper, and therefore cannot authorize the discharge of pollutants stemming from the large-scale drawdown, release and dewatering of coal ash ponds at Plant Mitchell at some unknown future date.	
Typographical Error	
Part III.C.2.e of the Draft Permit should be amended to correct a typographical error, striking internal reference to Part III.C.7.d and replacing the stricken reference with reference to Part III.C.2.d.	Comment noted and the reference has been corrected in the proposed permit.
Application "failures"	
Georgia Power's permit application fails to identify coal ash pond dewatering as an operation contributing to discharges, requiring effluent characterization. An applicant must identify the operation contributing to the effluent for which discharge authorization is sought. Ga. Comp. R. & Regs. 391-3-6-.06(5)(a), (c); 40 C.F.R. §§ 122.21(e)(3), (f)(1), (g)(3), (g)(4), (g)(7). The applicant must additionally identify the proposed methods for treating those discharges. Ga. Comp. R. & Regs. 391-3-6-.06(5)(a), (c); 40 C.F.R. § 122.21(g)(3). Georgia Power's application does not describe the type of operation that a future "dewatering plan" would contemplate: the	The ash pond wastestream is not a new wastestream. It is legacy wastewater. Because the dewatering discharge is not a new wastestream, the permittee was not required to separately address dewatering in its NPDES permit application Form 2C. The permittee identified the "contributing flow" as "Ash Pond Discharge" and provided the applicable "treatment" as "4A, 1U, 1G, 2C" on the NPDES permit application, Form 2C:

COMMENTS RECEIVED

mechanized pumping and draining of those ponds. Instead, the application merely identifies the same sort of operation that has been in place for decades – the passive treatment, by settling, of coal ash waste.

Passive, gravity based settling (EPA Code 1U) and discharge from the upper portion of the water column from these coal ash ponds (EPA Code 4A) are the *only* wastewater treatment methods identified in the application for wastewater discharge from the permitted outfalls at Plant Mitchell – Outfall Nos. 01B, 01E, and 04. *None* of these wastewater treatment methods address the wholesale pumping out of the impounded wastewaters contained within AP-1, AP-2, or AP-A. Nor do these treatment methods address wastewater generated as a result of coal ash pond *closure* operations.

While no information in the NPDES permit application discusses ash pond closure plans, Georgia Power has already disclosed its intent to close all of its ash ponds within the state, including those at Plant Mitchell. Neither the dewatering wastestream, nor the treatment to be applied to that wastestream is identified on the utility's EPA Form 2C NPDES application for Plant Mitchell. Hence, as set forth above, the activities associated with dewatering would be fundamentally different than those reflected in Georgia Power's NPDES Application.

To be authorized by the permit, dewatering activities must be disclosed in the permit application. Because such activities are not disclosed in the current application, they must be disclosed in a future one, and EPD must then treat that application as a major modification that requires reopening the permit.

EPD RESPONSE

b. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO.	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION(S)	b. AVERAGE FLOW (include units)	a. DESCRIPTION	b. LIST CODES FROM PART 2C	
01B	Ash Pond Discharge	*	3,000 GPM Maximum	4A	IU, IG, 2C
01E	Ash Pond #1 Emergency Overflow Storm water	*	8,000 GPM Maximum	4A	IU
04	Ash Pond #2 Emergency Overflow Storm water	*	23,000 GPM Maximum	4A	IU

Application Form 2C-1 identifies the following treatment codes as follows:

4-A: Discharge to Surface Waters
IU - Sedimentation (settling)
IG - Flocculation
2C- Chemical Precipitation

Additionally, the process flow diagram provided with the application identifies the "WWT" (wastewater treatment system) of which all process wastewater will flow through prior to discharge to the Flint River.

COMMENTS RECEIVED	EPD RESPONSE
Georgia Power has not disclosed the volume of impounded wastewaters within AP-1 and AP-2 at Plant Mitchell, a portion of which is thereby in direct contact with, and is therefore saturated by, the impounded wastewater.	Application Form 2C requires the permittee to disclose the volume of treated wastewater to be discharged. It does not require the permittee to disclose the volume of impounded water in Ash Pond 1 and Ash Pond 2. However, EPD will require this information be provided in the Coal Ash Pond Dewatering Plan, as in Part III.C.2.
EPA Region IV Comments to North Carolina's Department of Natural Resources	
EPA Region IV has addressed the material distinction between discharge of coal ash pond effluent stemming from ordinary passive, gravity-based settling wastewater treatment methods versus the large scale decanting of coal ash ponds in connection with Duke Energy's request to decant 14 ponds. EPA informed North Carolina's Department of Natural Resources ("DENR") that Duke's request was unacceptable under the Clean Water Act, absent adherence with the applicable regulatory controls. EPA concluded that large scale decanting represents a major change in discharge activity as compared with discharges from the upper levels of these coal ash ponds during ordinary plant operations. As exemplified by the concerns raised by EPA Region IV with respect to the Duke coal ash ponds, the mechanical draining of ash ponds circumvents the treatment system envisioned by the Mitchell Draft Permit, including the methods of	In accordance with EPD's Memorandum of Agreement with EPA Region IV, signed in 2007 EPD transmitted the draft permit and supporting documentation to EPA for review. EPA provided comments for the draft permit, provided below in the "EPD Response to Comments – EPA Comments" section. EPA's comments did not address a purported material distinction between discharge of coal ash pond effluent stemming from ordinary passive, gravity-based settling wastewater treatment methods versus decanting or dewatering. The following is language from the Preamble to 40 CFR Part § 423 regarding the applicable TBELS for the discharge of "legacy wastewater, "

COMMENTS RECEIVED	EPD RESPONSE
wastewater treatment identified in the NPDES Application at 1a – 4.	"Under this rule, legacy wastewater must comply with specific BAT limitations, which EPA is setting equal to the previously promulgated BPT limitations on TSS in the discharge of fly ash transport water, bottom ash transport water, and low volume waste sources." Additionally, in Section 8.3.8 of the "Technical Development Document for Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category," EPA-821-R-15-007, dated September 2015, it states the following "For purposes of the BAT limitations in this rule, EPA uses the term "legacy wastewater" to refer to FGD wastewater, fly ash transport water, bottom ash transport water, FGMC wastewater, or gasification waste water generated prior to the date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023 (see Section 8.3.7).Under this rule, legacy wastewater must comply with specific BAT limitations, which EPA is setting equal to the previously promulgated BPT limitations on TSS in the discharge of fly ash transport water, bottom ash transport water, and low volume waste sources." Since the draft permit was placed on public notice, EPA has subsequently announced its decision to reconsider the final rule's effective date of November 1, 2018 and administratively stay compliance dates that have not yet passed. See EPA April 12, 2017 Notice, delay of compliance deadlines. Docket ID No. EPA-HQ-OW-2009-0819, RIN 2040-AF14. The stay of the compliance dates does not affect EPA's BAT determination for discharge of

COMMENTS RECEIVED	EPD RESPONSE
	treated wastewater from coal ash ponds. See pages 14-15 and Appendix A of the Fact Sheet for further discussions regarding the EPA established BAT technology based effluent limit for the discharge of treated legacy wastewater from the coal ash ponds. The draft permit includes the applicable TBELs required under 40 CFR Part § 423.
Comparison of Coal Ash Pond Dewatering Activities In the State	
It appears that the concentrations of toxic pollutants in the ash pond dewatering effluent at other Georgia Power plants undergoing dewatering are materially higher than those disclosed on Georgia Power's NPDES permit applications for those facilities. For instance, monitoring records from plant McDonough since December 2016 reveal concentrations of Chromium in the dewatering effluent that are nearly three times higher than the values disclosed in the McDonough NPDES Form 3510-2C permit application. Likewise, concentrations of Selenium were detected in the pond dewatering effluent at 13 ug/l and 16 ug/l, *thirteen* and *sixteen* times the concentration identified in Georgia Power's effluent characterization for Plant McDonough as identified in the NPDES permit application for that facility. Importantly, these reported effluent concentrations were recorded at the outfall leading to the adjacent waterways *after* undergoing so-called "enhanced" wastewater treatment as described in a November 2016 coal	EPD approved the Coal Ash Dewatering Plans for GA Power Company's Plant McDonough-Atkinson and Plant McManus on January 10, 2017. Georgia Power has commenced dewatering of the ash ponds at Plant McManus in Glynn County and Plant McDonough-Atkinson in Cobb County for the purpose of closing them. For these facilities, Georgia Power provided advance notice to EPD of the dewatering activities in accordance with their NPDES permits and submitted detailed plans to EPD describing the water treatment controls, processes, and monitoring and reporting practices implemented to protect water quality. The approved Plans are available on our website at:

COMMENTS RECEIVED	EPD RESPONSE
ash pond "Dewatering Plan" subsequently approved by EPD (without notice or public comment). The concentration of pollutants within the effluent may only rise in the future, as water is drawn and pumped from lower levels of the ponds, and eventually from the interstitial pore water from within the saturated coal ash particles.	https://epd.georgia.gov/coal-ash-pond-dewatering-plans EPD is reviewing the monitoring data as we receive it and so far the data confirms that water quality is being protected. EPD understands there are concerns about some of the higher concentrations of pollutants being discharged and reported to EPD. EPD has evaluated the submitted data and determined that the increased level of pollutants does not cause or contribute to instream WQS violations; hence the increased level of pollutants discharged has not triggered the reasonable potential for an effluent limit in the NPDES permit. If, during the dewatering activities, the permittees discharge has the reasonable potential to cause or contribute to instream WQS violations, EPD will require the permittee to halt the dewatering activities until such time the permittee can demonstrate compliance.
The instream impact of dewatering discharges at another Georgia Power plant in coastal Georgia raises similar concerns. In the summer of 2016, a concerned citizen complained to EPD's Coastal Division about dewatering discharges at Georgia Power's Plant McManus in Brunswick, Georgia. Photos submitted by the resident documented the discharge and release of visible sediments, and/or floating solids from the ash pond dewatering discharges at Plant McManus. The photographs submitted to EPD depicted highly discolored effluent from the coal ash pond outfall at Plant McManus. These conditions were documented over the course of months, from the summer through winter of 2016.	EPD responded to complaints received on December 22, 2016 and June 22, 2016 at the Georgia Power Company Plant McManus facility. The Complaint Tracking System nos. are 81709 and 8013. EPD conducted site visits and follow-up site visits after each complaint was received. At the time of the December 2016 and January 2017 site visits, EPD determined, "I noticed no coal ash migration from the ash containment areas, and best management practices for their construction activities were installed.... At the time of the visit,

COMMENTS RECEIVED	EPD RESPONSE
EPD personnel later confirmed the release of pollutants from the McManus dewatering site. A subsequent site inspection in June 2016 confirmed "water leaving the [pond] outfall which was clear but foamy" adjacent to the ash pond outfall, where pond closure-related discharges were taking place. However, as demonstrated by the highly discolored, turbid plume depicted in photographs of the dewatering site, the effluent released from the ash ponds at Plant McManus is anything but "clear." The above examples illustrate how dewatering wastestreams are fundamentally different than those attendant to ordinary plant operations and treatment methods.	adequate measures were in place to control both turbidity and foam in the discharge." At the time of the June 2016 and July 2017 site visits, EPD determined "there was no visible evidence of sediment leaving the site by wind or water. No ash deposits were observed on marsh, dike or causeway vegetation. Neither was ash observed on the surface water." The complete investigation reports are available upon request at the Coastal District Office in Brunswick.
EPA Region IV Comments	
We recommend the permit require instream monitoring up- and down-stream of the facility's main outfall as soon as possible after the effective date of the permit. The monitoring should occur before dewatering commences, and the results should be used to revise the Reasonable Potential Analysis, as needed, to include appropriate water quality-based effluent limits. Subsequent instream monitoring should also be done sometime during the dewatering operation. This will provide data to demonstrate/verify that the dewatering event is not causing or contributing to ta violation of instream water quality standards.	EPD concurs and has added a permit condition in the proposed permit requiring the permittee to sample instream, (up and down stream of the permitted outfalls) at the time of the Coal Ash Pond Dewatering Plan submittal to EPD to establish background conditions. Part III.C.2 of the draft permit already requires the permittee to submit a Coal Ash Dewatering Plan that includes instream sampling during the dewatering activities. EPD will require a minimum sampling frequency instream of 2/month while dewatering is occurring.

COMMENTS RECEIVED	EPD RESPONSE
The Reasonable Potential Analysis did not appear to incorporate background concentrations of pollutants of concern appropriate for this facility. The RPA attached to the permit fact sheet only used totals suspended solids and harness concentrations. However, it should have contained metals data to ensure appropriate water quality-based effluent limits were developed. By example, EPA was able to obtain data from several ambient water quality monitoring stations in the Flint River upstream of the facility; see the attached Excel spreadsheet. The RPA should be redone to incorporate existing instream data (such as the data EPA obtained) as well as any data the facility collects during instream monitoring (see comment 1, above.)	The RPA used available and representative data when performing the RPA. The data submitted with the EPA comments is well over 10 years old and EPD does not believe that the limited number and age of the samples is representative of the background conditions in the receiving waterbody. As stated above, EPD has included a permit condition to require the permittee to perform instream sampling prior to beginning dewatering activities to establish background conditions and the instream data will be used in the RPA.
The permit should specify the analytical test method numbers to be used for compliance. For example, the most sensitive method for mercury is EPA Method 1631E. Likewise, for other metals, EPA Method 245.7 is appropriate.	Part I.B.3 of the permit requires the permittee to use the "sufficiently sensitive" test method as required in the 40 CFR Part 136. EPD does not believe the inclusion of the specific test methods for mercury and other metals is necessary and we have not included them in the proposed permit.
Page 19 of the permit includes requirements for the permittee to develop and submit a Coal Ash Pond Dewatering Plan. The permit should define the term "dewatering activity". For example, clarify how to differentiate between a dewatering activity from a typical discharge or drawdown event.	EPD has included the below language describing the terminology "dewatering activity." "prior to the closure process beginning, ash pond discharges will not cause water levels to drop beyond normal historical operation, hence once the dewatering activity has begun, the water levels may drop below historical operations."

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#17

Shell, Karrie-Jo

From: Dickson, Audra <Audra.Dickson@dnr.ga.gov>
Sent: Thursday, April 06, 2017 2:41 PM
To: Shell, Karrie-Jo
Cc: Staples, Bridget; Davis, Molly; Larson, Jeff
Subject: RE: EPA comments on the draft NPDES permit for Georgia Power Plant Mitchell

Karrie-Jo,

We are evaluating all comments received during the public comment period and will decide to make or not make changes after the public notice period has ended.

Please let me know if you have any comments or concerns.

Best Regards,

Audra Dickson
Industrial Permitting Manager
2 Martin Luther King Jr. Drive Suite 1152E
Atlanta, GA 30334
Phone: 404-463-4934

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

From: Shell, Karrie-Jo [mailto:Shell.Karrie-Jo@epa.gov]
Sent: Thursday, April 06, 2017 1:19 PM
To: Dickson, Audra
Cc: Staples, Bridget; Davis, Molly
Subject: FW: EPA comments on the draft NPDES permit for Georgia Power Plant Mitchell

I just wanted to re-send our comments on Plant Mitchell. Are you planning on making any changes based on our comments?

Karrie-Jo Robinson-Shell, P.E.
Environmental Engineer
US EPA Region 4
Water Protection Division
61 Forsyth Street
Atlanta, GA 30303
(404) 562-9308

From: Shell, Karrie-Jo
Sent: Wednesday, March 22, 2017 10:53 AM

To: 'Dickson, Audra' <Audra.Dickson@dnr.ga.gov>
Cc: Zimmer, Andrea <Zimmer.Andrea@epa.gov>; Staples, Bridget <Staples.Bridget@epa.gov>; Davis, Molly <Davis.Molly@epa.gov>; Diaz, Denisse <Diaz.Denisse@epa.gov>
Subject: EPA comments on the draft NPDES permit for Georgia Power Plant Mitchell

Audra,

Below are our comments on the draft permit for Georgia Power's Plant Mitchell, which we received on March 22, 2017. This facility is a retired coal-fired power plant with two inactive coal ash ponds which the company plans to dewater at some time in the future.

1. We recommend the permit require instream monitoring up- and down-stream of the facility's main outfall as soon as possible after the effective date of the permit. The monitoring should occur before dewatering commences, and the results should be used to revise the Reasonable Potential Analysis, as needed, to include appropriate water quality-based effluent limits. Subsequent instream monitoring should also be done sometime during the dewatering operation. This will provide data to demonstrate/verify that the dewatering event is not causing or contributing to ta violation of instream water quality standards.
2. The Reasonable Potential Analysis did not appear to incorporate background concentrations of pollutants of concern appropriate for this facility. The RPA attached to the permit fact sheet only used totals suspended solids and harness concentrations. However, it should have contained metals data to ensure appropriate water quality-based effluent limits were developed. By example, EPA was able to obtain data from several ambient water quality monitoring stations in the Flint River upstream of the facility; see the attached Excel spreadsheet. The RPA should be redone to incorporate existing instream data (such as the data EPA obtained) as well as any data the facility collects during instream monitoring (see comment 1, above.)
3. The permit should specify the analytical test method numbers to be used for compliance. For example, the most sensitive method for mercury is EPA Method 1631E. Likewise, for other metals, EPA Method 245.7 is appropriate.
4. Page 19 of the permit includes requirements for the permittee to develop and submit a Coal Ash Pond Dewatering Plan. The permit should define the term "dewatering activity". For example, clarify how to differentiate between a dewatering activity from a typical discharge or drawdown event.
5. Sampling to be performed during the dewatering operations should be a least weekly for the first few weeks and more often as the ash pond levels drops closer to the ash layer. This will ensure that instream water quality standards are not exceeded. Parameters should include pollutants common to ash pond discharges, such as: turbidity, TDS, Cu, Se, As, Hg, Cr, Pb, Cd, Zn, Ni, and hardness.
6. To ensure the integrity of the pond structure is not jeopardized if the pond water is drawn down too quickly, the permit should specify the drawdown rate during dewatering operations. We recommend you confer with Georgia's Dam Safety Department to determine the maximum draw down rate to ensure stability during releases.
7. For the emergency ash pond outfalls (01E and 004), the permit should specify the rainfall event for which the discharges will be authorized. The permit application states that the emergency ponds are designed to retain the 100Y24H storm, so we recommend the permit only allow discharges from these ponds during that storm events. Monitoring during discharge should include metals/pollutants commonly found in ash pond effluents: TDS, Cu, Se, As, Hg, Cr, Pb, Cd, Zn, Ni, and hardness.
8. Sampling during an emergency discharge should be at least once daily during the first hour of the discharge (or some other specified time frame).
9. For compliance purposes, the permit should specify how flow will be estimated for all outfalls.
10. The permit requires the permittee to perform routine inspections of the dike walls/berm; however, because there may be seeps which occur below the dike berms, we recommend the plan also require inspections for

seepages from the ash pond which may be hydrologically connected to waters of the State. In which case, such discharges would need to be covered under an NPDES permit.

Karrie-Jo Robinson-Shell, P.E.
Environmental Engineer
US EPA Region 4
Water Protection Division
61 Forsyth Street
Atlanta, GA 30303
(404) 562-9308

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#18

Armstrong, Kathy

From: Davis, Molly
Sent: Wednesday, August 23, 2017 12:43 PM
To: Armstrong, Kathy
Subject: FW: Proposed NPDES Permit for GA Power Company Plant Mitchell (SIC 4911)
Attachments: Proposed NPDES GA Power Company Plant Mitchell 8-1-2017_2of4.pdf

Here is another internal email but you may have gotten it already from Karrie-Jo

From: Shell, Karrie-Jo
Sent: Wednesday, August 2, 2017 7:26 AM
To: Staples, Bridget <Staples.Bridget@epa.gov>
Cc: Davis, Molly <Davis.Molly@epa.gov>
Subject: FW: Proposed NPDES Permit for GA Power Company Plant Mitchell (SIC 4911)

I will review. BTW, as you know, on 8/12/17, EPA will tell the court if the revised EG for the SE industry will be withdrawn or modified to address the petitioners submittal of new information pertaining to ash pond discharges. I would hope that GA would delay any permit actions until after that date.

Karrie-Jo Robinson-Shell, P.E.
Environmental Engineer
US EPA Region 4
Water Protection Division
61 Forsyth Street
Atlanta, GA 30303
(404) 562-9308

From: Dickson, Audra [mailto:Audra.Dickson@dnr.ga.gov]
Sent: Tuesday, August 01, 2017 4:05 PM
To: R4NPDESPermits <R4NPDESPermits@epa.gov>; Diaz, Denisse <Diaz.Denisse@epa.gov>
Cc: Shell, Karrie-Jo <Shell.Karrie-Jo@epa.gov>; Davis, Molly <Davis.Molly@epa.gov>; Staples, Bridget <Staples.Bridget@epa.gov>; Zimmer, Andrea <Zimmer.Andrea@epa.gov>
Subject: RE: Proposed NPDES Permit for GA Power Company Plant Mitchell (SIC 4911)

Dear Ms. Diaz:

In accordance with the Memorandum of Agreement, we are transmitting one copy of the above-referenced proposed revised NPDES permit, as well as additional supporting documentation. I will be transmitting 4 .pdf documents for review.

Please let me know if you have any comments or concerns.

Best Regards,

Audra Dickson
Industrial Permitting Manager

2 Martin Luther King Jr. Drive Suite 1152E
Atlanta, GA 30334
Phone: 404-463-4934

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

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#19

Shell, Karrie-Jo

From: Diaz, Denisse
Sent: Wednesday, March 15, 2017 7:55 AM
To: Shell, Karrie-Jo; Davis, Molly
Subject: FW: FW: EPA preliminary comments on the draft permit for Plant Hammond

FYI. Please make sure we include this in RAMS.

From: Diaz, Denisse
Sent: Wednesday, March 15, 2017 7:54 AM
To: jeff.larson@dnr.ga.gov; 'Audra.Dickson@dnr.ga.gov' <Audra.Dickson@dnr.ga.gov>
Subject: FW: FW: EPA preliminary comments on the draft permit for Plant Hammond

Dear Jeff and Audra:

This email transmits EPA Region 4's comments and recommendations on the draft permit for the Georgia Power Plant Hammond NPDES permit. It is my understanding that Karrie -Jo Shell discussed these comments with Audra a few days ago.

1. We recommend the permit require instream monitoring up- and down-stream of the facility's main outfall as soon as possible after the effective date of the permit. The monitoring should occur before dewatering commences, and the results should be used to revise the Reasonable Potential Analysis, as needed, to include appropriate water quality-based effluent limits. Subsequent instream monitoring should be done sometime during the dewatering operation. This will provide data to demonstrate/verify that the dewatering event is not causing or contributing to ta violation of instream water quality standards.
2. The permit should specify the analytical test method numbers to be used for compliance. For example, the most sensitive method for mercury is EPA Method 1631E. Likewise, for other metals, EPA Method 245.7 is appropriate.
3. The permit should define the term "dewatering activity". For example, clarify how to differentiate between a dewatering activity from a typical discharge or drawdown event.
4. Sampling to be performed during the dewatering operations should be a least weekly for the first few weeks and more often as the ash pond levels drops closer to the ash layer. This will ensure that instream water quality standards are not exceeded. Parameters should include pollutants common to ash pond discharges, such as: turbidity, TDS, Cu, Se, As, Hg, Cr, Pb, Cd, Zn, Ni, and hardness.
5. To ensure the integrity of the pond structure is not jeopardized if the pond water is drawn down too quickly, the permit should specify the drawdown rate during dewatering operations. We recommend you confer with Georgia's Dam Safety Department to determine the maximum draw down rate to ensure stability during releases.
6. For the emergency ash pond outfalls (003, 004, &10), the permit should specify the rainfall event for which the discharges will be authorized. The permit application states that the emergency ponds are designed to retain the 100Y24H storm, so I recommend the permit only allow discharges from these ponds during that storm events. Monitoring during discharge should include metals/pollutants commonly found in ash pond effluents: TDS, Cu, Se, As, Hg, Cr, Pb, Cd, Zn, Ni, and hardness.
7. For clarification, the effluent limitation tables for outfalls 003, 004 and 010 should be revised by replacing "2/month" with "See footnote 1" for the "Measurement Frequency". Additionally, sampling during an

emergency discharge should be at least once daily during the first hour of the discharge (or some other specified time frame).

8. The permit should require the permittee to measure flow for internal outfall 1N (FGD wastewater) at least as frequently as the other parameters (i.e., weekly).
9. For compliance purposes, the permit should specify how flow will be estimated for outfalls 01B, 01I (chemical metal cleaning wastes), 03, 04 and 10. Likewise, for outfalls 001 and 01A, the permit should specify how flow will be calculated.
10. The permit requires the permittee to perform routine inspections of the dike walls/berm; however, because there may be seeps which occur below the dike berms, we recommend the plan also require inspections for seepages from the ash pond which may be hydrologically connected to waters of the State. In which case, such discharges would need to be covered under an NPDES permit.

My staff and I are available to schedule a call if you wish to have a discussion or have any questions. Once the permit is finalized, please, provide a copy of the proposed final permit for EPA's review.

Best Regards,

Denisse

Denisse D. Diaz, Chief
NPDES Permitting and Enforcement Branch
Water Protection Division
(404) 562-9610

From: Dickson, Audra [mailto:Audra.Dickson@dnr.ga.gov]
Sent: Tuesday, March 14, 2017 2:19 PM
To: Shell, Karrie-Jo <Shell.Karrie-Jo@epa.gov>
Subject: Re: FW: EPA preliminary comments on the draft permit for Plant Hammond

We are not planning on sending a revised permit. You can send the comments to me or Jeff.

Thank audra

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On Tue, Mar 14, 2017 at 1:41 PM -0400, "Shell, Karrie-Jo" <Shell.Karrie-Jo@epa.gov> wrote:

Do you plan to send us a revised permit based on our comments? If not, I can have my Branch Chef forward these comments to Jeff Larson (?)

Karrie-Jo Robinson-Shell, P.E.
Environmental Engineer

US EPA Region 4
Water Protection Division
61 Forsyth Street
Atlanta, GA 30303
(404) 562-9308

From: Shell, Karrie-Jo
Sent: Tuesday, February 28, 2017 1:16 PM
To: 'Dickson, Audra' <Audra.Dickson@dnr.ga.gov>
Cc: Staples, Bridget <Staples.Bridget@epa.gov>; Davis, Molly <Davis.Molly@epa.gov>; Zimmer, Andrea <Zimmer.Andrea@epa.gov>; Diaz, Denisse <Diaz.Denisse@epa.gov>
Subject: EPA preliminary comments on the draft permit for Plant Hammond

Audra,

EPA received the draft permit for Plant Hammond via email on February 17th. This facility is a coal-fired power plant with an FGD scrubber. Future plans include dewatering the current ash ponds. There two receiving waterbodies – the Coosa River and Smith Cabin Creek, and the permit reflects implementation of GA's TMDLs for dissolved oxygen and PCBs for the Coosa River.

The following are preliminary comments on the draft permit. Final comments will most likely be transmitted via email from Denisse Diaz before the end of our 30 day review period.

1. The permit should require instream monitoring up- and down-stream of the facility's main outfall as soon as possible after the effective date of the permit, and the results should be used to revise the Reasonable Potential Analysis, as needed, to include appropriate water quality-based effluent limits.
2. The permit should specify the analytical test method numbers to be used for compliance. For example, the most sensitive method for mercury is EPA Method 1631E. Likewise, for other metals, EPA Method 245.7 is appropriate.
3. The permit should define the term "dewatering activity". For example, clarify how to differentiate between a dewatering activity from a typical discharge or drawdown event.
4. Sampling to be performed during the dewatering operations should be a least weekly for the first few weeks and more often as the ash pond levels drops closer to the ash layer. This will ensure that instream water quality standards are not exceeded. Parameters should include pollutants common to ash pond discharges, such as: turbidity, TDS, Cu, Se, As, Hg, Cr, Pb, Cd, Zn, Ni, and hardness.
5. To ensure the integrity of the pond structure is not jeopardized if the pond water is drawn down too quickly, the permit should specify the drawdown rate during dewatering operations.
6. Instream monitoring should occur before (see comment 1) and sometime during the dewatering operation. This will provide data to demonstrate/verify that the dewatering event is not causing or contributing to ta violation of instream water quality standards.
7. For the emergency ash pond outfalls (003, 004, &10), the permit should specify the rainfall event for which the discharges will be authorized. The permit application states that the emergency ponds are designed to retain the 100Y24H storm, so I recommend the permit only allow discharges from these ponds during that storm events. Monitoring during discharge should include metals/pollutants commonly found in ash pond effluents: TDS, Cu, Se, As, Hg, Cr, Pb, Cd, Zn, Ni, and hardness.
8. For clarification, the effluent limitation tables for outfalls 003, 004 and 010 should be revised by replacing "2/month" with "See footnote 1" for the "Measurement Frequency". Additionally, sampling during an emergency discharge should be at least once daily during the first hour of the discharge (or some other specified time frame).
9. The permit should require the permittee to measure flow for internal outfall 1N (FGD wastewater) at least as frequently as the other parameters (i.e., weekly).

10. For compliance purposes, the permit should specify how flow will be estimated for outfalls 01B, 01I (chemical metal cleaning wastes), 03, 04 and 10. Likewise, for outfalls 001 and 01A, the permit should specify how flow will be calculated.
11. The permit requires the permittee to perform routine inspections of the dike walls/berm; however, because there may be seeps which occur below the dike berms, we recommend the plan also require inspections for seepages from the ash pond which may be hydrologically connected to waters of the State. In which case, such discharges would need to be covered under an NPDES permit.

Karrie-Jo Robinson-Shell, P.E.
Environmental Engineer
US EPA Region 4
Water Protection Division
61 Forsyth Street
Atlanta, GA 30303
(404) 562-9308

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Hammond

#20

Shell, Karrie-Jo

From: Shell, Karrie-Jo
Sent: Tuesday, March 14, 2017 2:31 PM
To: Diaz, Denisse
Cc: Zimmer, Andrea; Davis, Molly; Staples, Bridget
Subject: FW: FW: EPA preliminary comments on the draft permit for Plant Hammond

Denise; GA does not plan to revise the draft permit for the Georgia Power Hammond Plant, so we can just send the below comment now. I spoke with Audra about these comments a week ago. Although she agreed to modify the permit, they do not plan to send us a revised permit at this point in time.

Dear Jeff and Audra:

This email transmits EPA Region 4's comments and recommendations on the draft permit for the Georgia Power Plant Hammond NPDES permit. It is my understanding that Karrie -Jo Shell discussed these comments with Audra a few two weeks ago.

1. We recommend the permit require instream monitoring up- and down-stream of the facility's main outfall as soon as possible after the effective date of the permit. The monitoring should occur before dewatering commences, and the results should be used to revise the Reasonable Potential Analysis, as needed, to include appropriate water quality-based effluent limits. Subsequent instream monitoring should be done sometime during the dewatering operation. This will provide data to demonstrate/verify that the dewatering event is not causing or contributing to ta violation of instream water quality standards.
2. The permit should specify the analytical test method numbers to be used for compliance. For example, the most sensitive method for mercury is EPA Method 1631E. Likewise, for other metals, EPA Method 245.7 is appropriate.
3. The permit should define the term "dewatering activity". For example, clarify how to differentiate between a dewatering activity from a typical discharge or drawdown event.
4. Sampling to be performed during the dewatering operations should be a least weekly for the first few weeks and more often as the ash pond levels drops closer to the ash layer. This will ensure that instream water quality standards are not exceeded. Parameters should include pollutants common to ash pond discharges, such as: turbidity, TDS, Cu, Se, As, Hg, Cr, Pb, Cd, Zn, Ni, and hardness.
5. To ensure the integrity of the pond structure is not jeopardized if the pond water is drawn down too quickly, the permit should specify the drawdown rate during dewatering operations. We recommend you confer with Georgia's Dam Safety Department to determine the maximum draw down rate to ensure stability during releases.
6. For the emergency ash pond outfalls (003, 004, &10), the permit should specify the rainfall event for which the discharges will be authorized. The permit application states that the emergency ponds are designed to retain the 100Y24H storm, so I recommend the permit only allow discharges from these ponds during that storm events. Monitoring during discharge should include metals/pollutants commonly found in ash pond effluents: TDS, Cu, Se, As, Hg, Cr, Pb, Cd, Zn, Ni, and hardness.
7. For clarification, the effluent limitation tables for outfalls 003, 004 and 010 should be revised by replacing "2/month" with "See footnote 1" for the "Measurement Frequency". Additionally, sampling during an emergency discharge should be at least once daily during the first hour of the discharge (or some other specified time frame).

8. The permit should require the permittee to measure flow for internal outfall 1N (FGD wastewater) at least as frequently as the other parameters (i.e., weekly).
9. For compliance purposes, the permit should specify how flow will be estimated for outfalls 01B, 01I (chemical metal cleaning wastes), 03, 04 and 10. Likewise, for outfalls 001 and 01A, the permit should specify how flow will be calculated.
10. The permit requires the permittee to perform routine inspections of the dike walls/berm; however, because there may be seeps which occur below the dike berms, we recommend the plan also require inspections for seepages from the ash pond which may be hydrologically connected to waters of the State. In which case, such discharges would need to be covered under an NPDES permit.

From: Dickson, Audra [mailto:Audra.Dickson@dnr.ga.gov]
Sent: Tuesday, March 14, 2017 2:19 PM
To: Shell, Karrie-Jo <Shell.Karrie-Jo@epa.gov>
Subject: Re: FW: EPA preliminary comments on the draft permit for Plant Hammond

We are not planning on sending a revised permit. You can send the comments to me or Jeff.

Thank audra

Get Outlook for Android

On Tue, Mar 14, 2017 at 1:41 PM -0400, "Shell, Karrie-Jo" <Shell.Karrie-Jo@epa.gov> wrote:

Do you plan to send us a revised permit based on our comments? If not, I can have my Branch Chef forward these comments to Jeff Larson (?)

Karrie-Jo Robinson-Shell, P.E.
Environmental Engineer
US EPA Region 4
Water Protection Division
61 Forsyth Street
Atlanta, GA 30303
(404) 562-9308

From: Shell, Karrie-Jo
Sent: Tuesday, February 28, 2017 1:16 PM
To: 'Dickson, Audra' <Audra.Dickson@dnr.ga.gov>
Cc: Staples, Bridget <Staples.Bridget@epa.gov>; Davis, Molly <Davis.Molly@epa.gov>; Zimmer, Andrea <Zimmer.Andrea@epa.gov>; Diaz, Denisse <Diaz.Denisse@epa.gov>
Subject: EPA preliminary comments on the draft permit for Plant Hammond

Audra,

EPA received the draft permit for Plant Hammond via email on February 17th. This facility is a coal-fired power plant with an FGD scrubber. Future plans include dewatering the current ash ponds. There two receiving waterbodies – the Coosa River and Smith Cabin Creek, and the permit reflects implementation of GA's TMDLs for dissolved oxygen and PCBs for the Coosa River.

The following are preliminary comments on the draft permit. Final comments will most likely be transmitted via email from Denisse Diaz before the end of our 30 day review period.

1. The permit should require instream monitoring up- and down-stream of the facility's main outfall as soon as possible after the effective date of the permit, and the results should be used to revise the Reasonable Potential Analysis, as needed, to include appropriate water quality-based effluent limits.
2. The permit should specify the analytical test method numbers to be used for compliance. For example, the most sensitive method for mercury is EPA Method 1631E. Likewise, for other metals, EPA Method 245.7 is appropriate.
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5. To ensure the integrity of the pond structure is not jeopardized if the pond water is drawn down too quickly, the permit should specify the drawdown rate during dewatering operations.
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Karrie-Jo Robinson-Shell, P.E.
Environmental Engineer
US EPA Region 4
Water Protection Division
61 Forsyth Street
Atlanta, GA 30303

(404) 562-9308

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GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Watershed Protection Branch
2 Martin Luther King, Jr. Drive
Suite 1152, East Tower
Atlanta, Georgia 30334
404-463-1511

#2

February 15, 2017

Mr. Mark Berry, Vice President
Environmental Affairs
Georgia Power Company
Plant Hammond
241 Ralph McGill Boulevard NE
Atlanta, Georgia 30308

RE: Draft Permit
Georgia Power Company
Plant Hammond
NPDES Permit GA0001457
Rome, Floyd County

Dear Mr. Berry:

The Environmental Protection Division (EPD) has received your permit application to discharge treated wastewater to waters of the State of Georgia. We are processing your application and are considering the reissuance of National Pollutant Discharge Elimination System (NPDES) permit in accordance with the Georgia Water Quality Control Act and the Federal Clean Water Act.

Before EPD can issue the permit, you must post the attached public notice for 30 days at the entrance of the Floyd County Courthouse. Within ten days of the posting date, please provide this office with a copy of the posted notice and a letter stating where and what date the notice was posted. An authorized representative of Georgia Power Company – Plant Hammond should sign the letter. At the end of the 30-day public comment period, EPD will make a determination on the issuance of the permit.

Please review the attached draft permit, as it contains the proposed conditions for the final permits. If you have comments or questions concerning these draft permits, please contact Audra Dickson at 404.463.4934 or *audra.dickson@dnr.ga.gov.*

Notification of New Federal E-Rule

On December 21, 2015, the U.S. Environmental Protection Agency (EPA) promulgated the NPDES Electronic Reporting Rule (E-Rule) in 40 CFR 127 to modernize Clean Water Act

reporting for municipalities, industries, and other facilities by converting to electronic data reporting systems (NetDMR) for NPDES permits instead of submitting written paper reports such as your Discharge Monitoring Reports (DMRs). You will be required to submit your DMR and supporting documents electronically using the NetDMR system. To learn more about NetDMR and sign up to start using the system, please review the enclosed brochure and visit us at: http://epd.georgia.gov/netdmr/.

Sincerely,

Audra Dickson, Manager
Industrial Permitting Unit

Enclosure(s)

CC: EPD Compliance Mountain District Cartersville Office – Ms. Cindy Nix (E-mail)
Ms. Molly Davis, Chief NPDES Permitting Section, EPA Region 4 (E-mail)

Watershed Protection Branch
Routing Attachment

From/Through/To	Initials	Date
Audra Dickson		
James A. Capp		
Lauren Curry		
Richard Dunn		

Facility: Plant Hammond

County: Floyd

Description (Check all that apply):

☐ **TIME-SENSITIVE ACTION** *(Attach RUSH Post-it to EXTERIOR OF PACKAGE w/ DATE)*
☐ **NOT ROUTINE** (Provide details in attachment or set briefing)
☐ **ROUTINE**

Program Area:

		Return to:
☐	Branch Chief	☐ 4th Floor
☐	401 Water Quality Certification	☐ Agriculture Building
☐	Safe Dams	☐ 13th Floor, East Tower
☐	Waste Water	☐ 11th Floor, East Tower
☐	Drinking Water	☐ 13th Floor, East Tower
☐	Non-Farm Water Withdrawal	☐ 13th Floor, East Tower
☐	Non-Point Source (Stream Buffer Variance)	☐ 14th Floor, East Tower
☐	Non-Point Source (Other)	☐ 14th Floor, East Tower

Action – Check all that apply and attach details as appropriate

☐ Permit Coordination Required (provide details in attachment (with whom, status)
☐ General Permit (attach redline if previously issued)
☐ New permit (never permitted before)
☐ Amendment/Modification of existing permit
  ☐ Amendment allows water withdrawal increase or wastewater pollutant loading increase
  ☐ Ownership transfer only
☐ Renewal/reissuance does not differ substantially from existing permit
☐ Renewal/reissuance differs substantially from existing permit (describe changes)
  ☐ Requested by applicant ☐ Initiated by EPD
☐ Response to comments attached (required)
  ☐ Changes made after public notice (If so, is permittee aware ☐Yes ☐No)
☐ US EPA comments received
  ☐ Response to comments attached (required if comments received)
☐ SRF Documents (NONSI; Categorical Exclusion)
☐ North Georgia Metro Compliance Audit Certification
☐ Other (Specify and provide details):

Comments:

Please mail the Draft Permit and Fact Sheet to Mr. Mark Berry, VP Environmental Affairs (address on letter)

Please scan and email a copy of the Draft Permit & Fact Sheet to
1. Audra Dickson,
2. EPA Region 4 mailbox at R4NPDESPermits@epa.gov, and
3. Molly Davis at davis.molly@epa.gov

Also, everything in the this folder (see below) on the s:drive needs to be emailed to the A.Dickson, EPA Region 4 mailbox and Molly Davis as well.

S:\WRP\Charles Nezianya\NPDES Permits\Plant Hammond - GA0001457\Draft Permit Package\Final Draft Permit File

This is a transitory document.
January 26, 2017

ADMINISTRATIVE REMINDERS:

This is a transitory document.
January 26, 2017

Permit No. GA0001457
Issuance Date: XXXX

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

National Pollutant Discharge Elimination System Permit

In accordance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), hereinafter called the State Act; the Federal Water Pollution Control Act, as amended (33 U.S. C. 1251 et seq.), hereinafter called the Federal Act; and the Rules and Regulations promulgated pursuant to each of these Acts,

Georgia Power Company
Plant Hammond
241 Ralph McGill Boulevard, NE
Atlanta, Georgia 30308

is issued a permit to discharge from a facility located at

5963 Alabama Highway, S.W.
Rome, Georgia 30165

to receiving waters

Coosa River (external outfall nos. 01, 03, 04, 05) and Smith Cabin Creek (external outfall no. 10) in the Coosa River Basin

in accordance with effluent limitations, monitoring requirements and other conditions set forth in the permit.

This permit is issued in reliance upon the permit application signed on May 27, 2016, any other applications upon which this permit is based, supporting data entered therein or attached thereto, and any subsequent submittal of supporting data.

This permit shall become effective on XXXX XX, XXXX.

This permit and the authorization to discharge shall expire at midnight XXXX XX, XXXX.

Richard E. Dunn, Director
Environmental Protection Division

Insert Cover Page

PART I

A.1.a. Effluent Limitations and Monitoring Requirements

During the period specified on the first page of this permit, the permittee is authorized to discharge from outfall number 01[4] – Final plant discharge commingled with stormwater.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements[1]		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	Report	Report	--	--	Daily	Calculation	Final Effluent
Intake Temperature[2, 3] (°F)	--	Report	--	--	2/Year	Instantaneous	See Note 2 Below
Temperature[2, 3] (°F)	--	Report	--	--	2/Year	Instantaneous	See Note 2 and 3 Below
Delta Temperature[2, 3] (°F)	--	Report	--	--	2/Year	Instantaneous	See Note 2 and 3 Below

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored twice per month by grab sample.

1 All the parameters must be monitored if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.

2 Intake temperature measurement shall be taken at the plant intake structure. The downstream temperature measurement shall be taken at river mile 269.6 at the edge of the approved thermal mixing zone at a depth of 3 feet. Temperature measurements shall be taken between the hours of 9:00 a.m. and 3:00 p.m. at all time. The temperature differential shall be calculated as the downstream temperature minus the intake temperature.

3 See Part I.A.1.b for the thermal loading discharge tables.

4 There shall be no discharge of floating solids, oil, scum or visible foam other than trace amounts.

A.1.b. Effluent Limitations and Monitoring Requirements

During the period specified on the first page of this permit, the permittee is authorized to discharge from outfall number 01 – Final plant discharge commingled with stormwater.

Such discharges shall be limited and monitored by the permittee as specified in Table No. 1 and Table No. 2 below:

Table No. 1: Effluent limits for flows greater than >3571 cfs to 1501 cfs.

Flow at Mayos Bar USGS Gage 02397000 (cfs)[1,]	August – June (MBTU/day[2])	July (MBTU/day[2])	Monitoring Frequency	Measurement Type	Sample Location
Greater than > 3751	95,794	95,794	Hourly	Instantaneous	Final Effluent
3501 – 3750	95,794	92,299	Hourly	Instantaneous	Final Effluent
3251 – 3500	95,794	85,709	Hourly	Instantaneous	Final Effluent
3001 – 3250	88,825	79,118	Hourly	Instantaneous	Final Effluent
2751 – 3000	81,426	72,527	Hourly	Instantaneous	Final Effluent
2501 – 2750	74,026	65,936	Hourly	Instantaneous	Final Effluent
2251 – 2500	66,626	59,345	Hourly	Instantaneous	Final Effluent
2001 – 2250	59,227	52,754	Hourly	Instantaneous	Final Effluent
1751 – 2000	51,827	44,794	Hourly	Instantaneous	Final Effluent
1501– 1750	44,427	33,824	Hourly	Instantaneous	Final Effluent

Table No. 2: Effluent limits for flows from 1251 cfs to 751 cfs.

Flow at Mayos Bar USGS Gage 02397000 (cfs)[1]	September – June (MBTU/ Day[2])	July (MBTU/ Day[2])	August (MBTU/ Day[2])	Monitoring Frequency	Measurement Type	Sample Location
1251 – 1500	37,028	26,968	37,028	Hourly	Instantaneous	Final Effluent
1001 – 1250	29,628	18,740	28,339	Hourly	Instantaneous	Final Effluent
751 – 1000	22,229	10,970	18,055	Hourly	Instantaneous	Final Effluent
501-750	15,404	2,742	10,696	Hourly	Instantaneous	Final Effluent

[1] Compliance with the thermal loads presented in the table above will be determined from the following equation:

$$\text{MBTU} = \sum \frac{Q\ (\text{cfs}) * 3{,}600,(\text{sec/hour}) * \text{Spec Weight (lb/cf)} * \text{Spec Heat Capacity (BTU/lb*}^0\text{F)} * \text{Temp (}^0\text{F)}}{10^6\ (\text{BTU/Million BTU})}$$

Where:
Q = cooling water flow rate across the condensers
Specific Weight of water ~ 62.4 lb/cf
Specific Heat capacity of water = 1 BTU/lb*^{0}F
Temp = Temperature difference (Internal Outfall 01A Condenser Outlet - Internal Outfall 01A Condenser Intake)

[2] MBTU = Million British Thermal Units, daily maximum

A.2. Effluent Limitations and Monitoring Requirements

During the period specified on the first page of this permit, the permittee is authorized to discharge from internal outfall number 01A[1,2,3,4, 5] – Once through cooling water.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements[1]		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	Report	Report	--	--	1/Week	Calculation	See Note 2 & 5 Below
Total Residual Chlorine[2, 3, 5]	--	--	--	0.2	1/Week	Grab[3]	See Note 2 & 5 Below
Total Residual Chlorine Time [2, 3, 5] (minutes/day/unit)	--	--	--	120	1/Week	--	--

1 Flow must be monitored if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.

2 Total residual chlorine monitoring is only required during periods of condenser chlorination.

3 The permittee shall sample and measure the wastewater at the discharge tunnel prior to mixing with any other discharge.

4 Multiple grab samples are to be collected on 30-minute intervals during periods of TRC discharges attributable to condenser chlorination

5 See Part III.C.1, Special Conditions of this permit.

A.3. Effluent Limitations and Monitoring Requirements

During the period specified on the first page of this permit, the permittee is authorized to discharge from internal outfall number 01B – Ash transport water blowdown and stormwater

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements[1]		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	Report	Report	--	--	2/Month	Estimation	Final Effluent[2]
Total Suspended Solids	--	--	30	100	2/Month	Grab	Final Effluent[2]
Oil & Grease	--	--	15	20	2/Month	Grab	Final Effluent[2]

1 All the parameters must be monitored if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.

2 The permittee shall sample and measure the wastewater prior to mixing with any other discharge.

A.4. Effluent Limitations and Monitoring Requirements

During the period specified on the first page of this permit, the permittee is authorized to discharge from internal outfall number 01I[3] – Chemical metal cleaning waste basin discharge.

The quantity of pollutants discharged in chemical metal cleaning waste shall not exceed the quantity determined by multiplying the flow of chemical metal cleaning waste times the concentration listed in the following table:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements[1]		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	Report	Report	--	--	2/Month	Estimate	See Note 2 below
Copper, Total	--	--	1.0	1.0	2/Month	Grab	See Note 2 below
Iron, Total	--	--	1.0	1.0	2/Month	Grab	See Note 2 below
Oil & Grease	--	--	15	20	2/Month	Grab	See Note 2 below
Total Suspended Solids	--	--	30	100	2/Month	Grab	See Note 2 below

1 All the parameters must be monitored if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.

2 The permittee shall sample and measure the discharge prior to mixing with any other discharge.

3 See Part III.C.3 – Special Conditions of this permit.

A.5.a Effluent Limitations and Monitoring Requirements

Upon the effective date of the permit, the permittee is authorized to discharge from internal outfall number 01N[3] – Flue gas desulfurization (FGD) wastewater. Beginning on December 31, 2022 and continuing until December 30, 2023[3], the permittee shall monitor and report the discharge as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements[1]		
	Mass Based		Concentration Based		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Arsenic, Total (µg/L)	--	--	Report	Report	1/Week	Grab	See Note 2 below
Mercury, Total (ng/L)	--	--	Report	Report	1/Week	Grab	See Note 2 below
Selenium, Total (µg/L)	--	--	Report	Report	1/Week	Grab	See Note 2 below
Nitrate/Nitrite as N (mg/L)	--	--	Report	Report	1/Week	Grab	See Note 2 below

OK

Need flow

1 All the parameters must be monitored if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.

2 The permittee shall sample and measure the discharge prior to mixing with any other discharge.

3 See Part III.C.7 – Implementation Schedule of Compliance

A.5.b Effluent Limitations and Monitoring Requirements

Effective on December 31, 2023[3], the permittee is authorized to discharge from outfall number 01N[3] – Flue gas desulfurization (FGD) wastewater.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements[1]		
	Mass Based		Concentration Based		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Arsenic, Total (µg/L)	--	--	8	11	1/Week	Grab	See Note 2 below
Mercury, Total (ng/L)	--	--	356	788	1/Week	Grab	See Note 2 below
Selenium, Total (µg/L)	--	--	12	23	1/Week	Grab	See Note 2 below
Nitrate/Nitrite as N (mg/L)	--	--	4.4	17	1/Week	Grab	See Note 2 below

[1] All the parameters must be monitored if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.

[2] The permittee shall sample and measure the discharge prior to mixing with any other discharge.

[3] See Part III.C.7 – Implementation Schedule for Flue gas desulfurization (FGD) wastewater

A.6. Effluent Limitations and Monitoring Requirements

During the period specified on the first page of this permit, the permittee is authorized to discharge from outfall number 05 – Intake screen backwash.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements[1]		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	Report	Report	--	--	1/Month	Estimation	Final Effluent

[1] All the parameters must be monitored if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.

A.7. Effluent Limitations and Monitoring Requirements

During the period specified on the first page of this permit, the permittee is authorized to discharge from outfall numbers 03[2] and 04[2] – Ash pond #2 emergency overflow, and ash pond #4 emergency overflow commingled with stormwater.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements[1]		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	Report	Report	--	--	2/Month	Estimation	Final Effluent
Total Suspended Solids	--	--	30	100	2/Month	Grab	Final Effluent
Oil & Grease	--	--	15	20	2/Month	Grab	Final Effluent

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored twice per month by grab sample.

[1] All the parameters must be monitored if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.

[2] There shall be no discharge of floating solids, oil, scum or visible foam other than trace amounts.

A.8. Effluent Limitations and Monitoring Requirements

During the period specified on the first page of this permit, the permittee is authorized to discharge from outfall number 10[2] – Ash pond #3 emergency overflow commingled with stormwater.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements[1]		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	Report	Report	--	--	2/Month	Estimation	Final Effluent
Total Suspended Solids	--	--	30	100	2/Month	Grab	Final Effluent
Selenium, Total	Report	Report	0.0098	0.0147	2/Month	Grab	Final Effluent
Cadmium, Total	Report	Report	0.0009	0.00135	2/Month	Grab	Final Effluent
Oil & Grease	--	--	15	20	2/Month	Grab	Final Effluent

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored twice per month by grab sample.

1 All the parameters must be monitored if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.

2 There shall be no discharge of floating solids, oil, scum or visible foam other than trace amounts.

B. Monitoring

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. The permittee shall maintain a written sampling plan and schedule onsite.

2. Sampling Period

a. Unless otherwise specified in this permit, quarterly samples shall be taken during the periods January-March, April-June, July-September, and October-December.

b. Unless otherwise specified in this permit, semiannual samples shall be taken during the periods January-June and July-December.

c. Unless otherwise specified in this permit, annual samples shall be taken during the period of January-December.

3. Monitoring Procedures

Analytical methods, sample containers, sample preservation techniques, and sample holding times must be consistent with the techniques and methods listed in 40 CFR Part 136. The analytical method used shall be sufficiently sensitive. EPA-approved methods must be applicable to the concentration ranges of the NPDES permit samples.

4. Detection Limits

All parameters will be analyzed using the appropriate detection limits. If the results for a given sample are such that a parameter is not detected at or above the specified detection limit, a value of "NOT DETECTED" will be reported for that sample and the detection limit will also be reported.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The exact place, date, and time of sampling or measurements, and the person(s) performing the sampling or the measurements;

b. The dates and times the analyses were performed, and the person(s) performing the analyses;

c. The analytical techniques or methods used;

d. The results of all required analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report. Such increased monitoring frequency shall also be indicated. EPD may require, by written notification, more frequent monitoring or the monitoring of other pollutants not required in this permit.

7. Records Retention

The permittee shall retain records of all monitoring information, including all records of analyses performed, calibration and maintenance of instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a minimum of three (3) years from the date of the sample, measurement, report or application, or longer if requested by EPD.

8. Penalties

The Federal Clean Water Act and the Georgia Water Quality Control Act provide that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine or by imprisonment, or by both. The Federal Clean Water Act and the Georgia Water Quality Control Act also provide procedures for imposing civil penalties which may be levied for violations of the Act, any permit condition or limitation established pursuant to the Act, or negligently or intentionally failing or refusing to comply with any final or emergency order of the Director of EPD

C. Definitions

1. The "daily average" mass means the total discharge by mass during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days sampled during the calendar month when the measurements were made.

2. The "daily maximum" mass means the total discharge by mass during any calendar day.

3. The "daily average" concentration means the arithmetic average of all the daily determinations of concentrations made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample.

4. The "daily maximum" concentration means the daily determination of concentration for any calendar day.

5. A "calendar day" is defined as any consecutive 24-hour period.

6. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

7. "Severe property damage" means substantial physical damage to property, damage to treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

8. "EPD" as used herein means the Environmental Protection Division of the Department of Natural Resources.

9. "State Act" as used herein means the Georgia Water Quality Control Act (Official Code of Georgia Annotated; Title 12, Chapter 5, Article 2).

10. "Rules" as used herein means the Georgia Rules and Regulations for Water Quality Control.

D. Reporting Requirements

1. The permittee must electronically report the DMR, OMR and additional monitoring data using the web based electronic NetDMR reporting system, unless a waiver is granted by EPD.

   a. The permittee must comply with the Federal National Pollutant Discharge Elimination System Electronic Reporting regulations in 40 CFR §127. The permittee must electronically report the DMR, OMR, and additional monitoring data using the web based electronic NetDMR reporting system online at: https://netdmr.epa.gov/netdmr/public/home.htm

   b. Monitoring results obtained during the calendar month shall be summarized for each month and reported on the DMR. The results of each sampling event shall be reported on the OMR and submitted as an attachment to the DMR.

   c. The permittee shall submit the DMR, OMR and additional monitoring data no later than 11:59 p.m. on the 15th day of the month following the sampling period.

   d. All other reports required herein, unless otherwise stated, shall be submitted to the EPD Office listed on the permit issuance letter signed by the Director of EPD.

2. No later than December 21, 2020, the permittee must electronically report the following compliance monitoring data and reports using the online web based electronic system approved by EPD, unless a waiver is granted by EPD:

   a. Sewer Overflow/Bypass Event Reports;
   b. Noncompliance Notification;
   c. Other noncompliance; and
   d. Bypass

3. **Other Reports**

   All other reports required in this permit not listed above in Part I.D.2 or unless otherwise stated, shall be submitted to the EPD Office listed on the permit issuance letter signed by the Director of EPD.

4. **Other Noncompliance**

   All instances of noncompliance not reported under Part I.B. and Part II. A. shall be reported to EPD at the time the monitoring report is submitted.

5. **Signatory Requirements**

   All reports, certifications, data or information submitted in compliance with this permit or requested by EPD must be signed and certified as follows:

a. Any State or NPDES Permit Application form submitted to the EPD shall be signed as follows in accordance with the Federal Regulations, 40 C.F.R. 122.22:

1. For a corporation, by a responsible corporate officer. A responsible corporate officer means:

i a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision making functions for the corporation, or

ii. the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or

3. For a municipality, State, Federal, or other public facility, by either a principal executive officer or ranking elected official.

b. All other reports or requests for information required by the permit issuing authority shall be signed by a person designated in (a) above or a duly authorized representative of such person, if:

1. The representative so authorized is responsible for the overall operation of the facility from which the discharge originates, e.g., a plant manager, superintendent or person of equivalent responsibility;

2. The authorization is made in writing by the person designated under (a) above; and

3. The written authorization is submitted to the Director.

c. Any changes in written authorization submitted to the permitting authority under (b) above which occur after the issuance of a permit shall be reported to the permitting authority by submitting a copy of a new written authorization which meets the requirements of (b) and (b.1) and (b.2) above.

d. Any person signing any document under (a) or (b) above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

PART II

A. Management Requirements

1. Notification of Changes

a. The permittee shall provide EPD at least 90 days advance notice of any planned physical alterations or additions to the permitted facility that meet the following criteria:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b);

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1); or

3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

b. The permittee shall give at least 90 days advance notice to EPD of any planned changes to the permitted facility or activity which may result in noncompliance with permit requirements.

c. Following the notice in paragraph a. or b. of this condition the permit may be modified. The permittee shall not make any changes, or conduct any activities, requiring notification in paragraph a. or b. of this condition without approval from EPD.

d. The permittee shall provide at least 30 days advance notice to EPD of:

1. any planned expansion or increase in production capacity; or

2. any planned installation of new equipment or modification of existing processes that could increase the quantity of pollutants discharged or result in the discharge of pollutants that were not being discharged prior to the planned change

if such change was not identified in the permit application(s) upon which this permit is based and for which notice was not submitted under paragraphs a. or b. of this condition.

e. All existing manufacturing, commercial, mining, and silvicultural dischargers shall notify EPD as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (i) 100 μg/L, (ii) five times the maximum concentration reported for that pollutant in the permit application, or (iii) 200 μg/L for acrolein and acrylonitrile, 500 μg/L for 2,4 dinitrophenol and for 2-methyl-4-6-dinitrophenol, or 1 mg/L antimony.

f. All existing manufacturing, commercial, mining, and silvicultural dischargers shall notify EPD as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in any discharge on a nonroutine or infrequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (i) 500 μg/L, (ii) ten times the maximum concentration reported for that pollutant in the permit application, or (iii) 1 mg/L antimony.

g. Upon the effective date of this permit, the permittee shall submit to EPD an annual certification in June of each year certifying whether or not there has been any change in processes or wastewater characteristics as described in the submitted NPDES permit application that required notification in paragraph a., b., or d. of this condition. The permittee shall also certify annually in June whether the facility has received offsite wastes or wastewater and detail any such occurrences.

2. Noncompliance Notification

If, for any reason, the permittee does not comply with, or will be unable to comply with any effluent limitation specified in this permit, the permittee shall provide EPD with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

a. A description of the discharge and cause of noncompliance; and

b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

3. Facility Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypassing

a. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to EPD at least 10 days (if possible) before the date of the bypass. The permittee shall submit notice of any unanticipated bypass with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

1. A description of the discharge and cause of noncompliance; and

2. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

b. Any diversion or bypass of facilities covered by this permit is prohibited, except (i) where unavoidable to prevent loss of life, personal injury, or severe property damage; (ii) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if the permittee could have installed adequate back-up equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and (iii) the permittee submitted a notice as required above. The permittee shall operate the treatment works, including the treatment plant and total sewer system, to minimize discharge of the pollutants listed in Part I of this permit from combined sewer overflows or bypasses. Upon written notification by EPD, the permittee may be required to submit a plan and schedule for reducing bypasses, overflows, and infiltration in the system.

6. Sludge Disposal Requirements

Sludge shall be disposed of in accordance with the regulations and guidelines established by EPD, the Federal Clean Water Act, and the Resource Conservation and Recovery Act (RCRA). Prior to disposal of sludge by any method other than co-disposal in a permitted sanitary landfill, the permittee shall submit a sludge management plan to the Watershed Protection Branch of EPD for written approval. For land application of nonhazardous sludge, the permittee shall comply with the applicable criteria outlined in the most current version of EPD's "Guidelines for Land Application of Sewage Sludge (Biosolids) at Agronomic Rates" and with the State Rules, Chapter 391-3-6-.17. EPD may require more stringent control of this activity. Prior to land applying nonhazardous sludge, the permittee shall submit a sludge management plan to EPD for review and approval. Upon approval, the plan for land application will become a part of the NPDES permit upon modification of the permit.

7. Sludge Monitoring Requirements

The permittee shall develop and implement procedures to ensure adequate year-round sludge disposal. The permittee shall monitor the volume and concentration of solids removed from the plant. Records shall be maintained which document the quantity of solids removed from the plant. The ultimate disposal of solids shall be reported (in the unit of lbs) as specified in Part I.D of this permit.

8. Power Failures

Upon the reduction, loss, or failure of the primary source of power to said water pollution control facilities, the permittee shall use an alternative source of power if available to reduce or otherwise control production and/or all discharges in order to maintain compliance with the effluent limitations and prohibitions of this permit.

If such alternative power source is not in existence, and no date for its implementation appears in Part I, the permittee shall halt, reduce or otherwise control production and/or all discharges from wastewater control facilities upon the reduction, loss, or failure of the primary source of power to said wastewater control facilities.

9. Operator Certification Requirements

The permittee shall ensure that, when required, a certified operator is in charge of the facility in accordance with Georgia State Board of Examiners for Certification of Water and Wastewater Treatment Plant operators And Laboratory Analysts Rule 43-51-6.(b)

10. Laboratory Analyst Certification Requirements

The permittee shall ensure that, when required, the person in responsible charge of the laboratory performing the analyses for determining permit compliance is certified in accordance with the Georgia Certification of Water and Wastewater Treatment Plant operators and Laboratory Analysts Act, as amended, and the Rules promulgated thereunder.

B. Responsibilities

1. Right of Entry

The permittee shall allow the Director of EPD, the Regional Administrator of EPA, and/or their authorized representatives, agents, or employees, upon the presentation of credentials:

a. To enter upon the permittee's premises where a discharge source is located or in which any records are required to be kept under the terms and conditions of this permit; and

b. At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and to sample any substance or parameters in any location.

2. Transfer of Ownership or Control

A permit may be transferred to another person by a permittee if:

a. The permittee notifies the Director of EPD in writing of the proposed transfer at least thirty (30) days in advance of the proposed transfer;

b. A written agreement containing a specific date for transfer of permit responsibility and coverage between the current and new permittee (including acknowledgement that the existing permittee is liable for violations up to that date, and that the new permittee is liable for violations from that date on) is submitted to the Director at least thirty (30) days in advance of the proposed transfer; and

c. The Director, within thirty (30) days, does not notify the current permittee and the new permittee of EPD's intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

3. Availability of Reports

Except for data deemed to be confidential under O.C.G.A. § 12-5-26 or by the Regional Administrator of the EPA under the Code of Federal Regulations, Title 40, Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at an office of EPD. Effluent data, permit applications, permittee's names and addresses, and permits shall not be considered confidential.

4. Permit Modification

After written notice and opportunity for a hearing, this permit may be modified, suspended, revoked or reissued in whole or in part during its term for cause including, but not limited to, the following:

a. Violation of any conditions of this permit;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge; or

d. To comply with any applicable effluent limitation issued pursuant to the order of the United States District Court for the District of Columbia issued on June 8, 1976, in Natural Resources Defense Council, Inc. et.al. v. Russell E. Train, 8 ERC 2120(D.D.C. 1976), if the effluent limitation so issued:

1. is different in conditions or more stringent than any effluent limitation in the permit; or

2. controls any pollutant not limited in the permit.

5. Toxic Pollutants

The permittee shall comply with effluent standards or prohibitions established pursuant to Section 307(a) of the Federal Clean Water Act for toxic pollutants, which are present in the discharge within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

6. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

7. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Federal Clean Water Act.

8. Water Quality Standards

Nothing in this permit shall be construed to preclude the modification of any condition of this permit when it is determined that the effluent limitations specified herein fail to achieve the applicable State water quality standards.

9. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Expiration of Permit

The permittee shall not discharge after the expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information, forms, and fees as are required by EPD at least 180 days prior to the expiration date.

11. Contested Hearings

Any person who is aggrieved or adversely affected by an action of the Director of EPD shall petition the Director for a hearing within thirty (30) days of notice of such action.

12. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

13. Best Management Practices

The permittee will implement best management practices to control the discharge of hazardous and/or toxic materials from ancillary manufacturing activities. Such activities include, but are not limited to, materials storage, in-plant transfer, process and material handling, loading and unloading operations, plant site runoff, and sludge and waste disposal.

14. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

15. Duty to Provide Information

a. The permittee shall furnish to the EPD Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish upon request copies of records required to be kept by this permit.

b. When the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or any report to the Director, it shall promptly submit such facts and information.

16. Duty to Comply

a. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Georgia Water Quality Control Act (O.C.G.A. § 12-5-20 et. seq.) and is grounds for enforcement action; for permit termination; revocation and reissuance, or modification; or for denial of a permit renewal application. Any instances of noncompliance must be reported to EPD as specified in Part I. D and Part II.A of this permit.

b. Penalties for violations of permit conditions. The Federal Clean Water Act and the Georgia Water Quality Control Act (O.C.G.A. § 12-5-20 et. seq.) provide that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this permit, makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine or by imprisonment, or by both. The Georgia Water Quality Control Act (Act) also provides procedures for imposing civil penalties which may be levied for violations of the Act, any permit condition or limitation established pursuant to the Act, or negligently or intentionally failing or refusing to comply with any final or emergency order of the Director.

17. Upset Provisions

Provisions of 40 CFR 122.41(n)(1)-(4), regarding "Upset" shall be applicable to any civil, criminal, or administrative proceeding brought to enforce this permit.

PART III

A. Previous Permits

1. All previous State wastewater permits issued to this facility, whether for construction or operation, are hereby revoked by the issuance of this permit. This action is taken to assure compliance with the Georgia Water Quality Control Act, as amended, and the Federal Clean Water Act, as amended. Receipt of the permit constitutes notice of such action. The conditions, requirements, terms and provisions of this permit authorizing discharge under the National Pollutant Discharge Elimination System govern discharges from this facility.

B. Schedule of Compliance

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule: N/A

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

C. Special Conditions

1. Total Residual Chlorine

   a. The permittee may not discharge total residual chlorine (TRC) from any single generating unit for more than two hours per day unless the permittee demonstrates to EPD that discharge for more than two hours is required for macroinvertebrate control. Simultaneous multi-unit chlorination is permitted; and

   b. The TRC maximum is the instantaneous maximum which may occur at any time. The permittee shall develop a system for monitoring and recording the total time of TRC discharges. The results shall be reported in a suitably concise form beginning with the first scheduled Discharge Monitoring Report & Operation Monitoring Report (OMR) and continuing on each OMR thereafter.

2. No Discharge of Polychlorinated Biphenyl Compounds

   There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

3. Chemical Metal Cleaning Wastes

   The permittee shall contain any chemical metal cleaning wastes generated for further treatment or disposal in a manner to meet the permit effluent limits specified in Part I.A.4 table prior to discharge. This requirement also applies to any preoperational chemical cleaning of metal process equipment.

4. §316(b) of the Clean Water Act (CWA) & Cooling Water Intake Structures

The permittee is subject to the EPA's §316(b) of the Clean Water Act (CWA) regulation for existing facilities and the current permit expired before July 14, 2018. Therefore, the permittee must submit to the EPD the information required in the applicable provisions of 40 CFR 122.21(r) – Application Requirements for Facilities with Cooling Water Intake Structures, when applying for the subsequent permit. The permittee requested this extension in accordance with the Rule and issuance of this permit constitutes EPD's approval of this request.

5. § 40 C.F.R. Part 423 Steam Electric Power Generating Point Source Category

The permittee is subject to the EPA's 40 CFR Part 423 regulation for existing facilities. The permittee must comply with the new federal regulations as described in 40 CFR 423 for the flue gas desulfurization water, 40 CFR 423.1(g), fly ash transport water, 40 CFR 423.13(h), and bottom ash transport water, 40 CFR 423.13(k) by December 31, 2023.

6. Coal Ash Pond Dewatering Plan (Plan)

The permittee shall provide EPD at least 90 days written advance notice of any coal ash pond dewatering activities and a Coal Ash Pond Dewatering Plan for review and approval. The Plan must contain at a minimum the following components:

a. Detailed description of the wastewater treatment system components, flow schematics, and appropriate maps of the site;

b. Detailed description of the process controls being installed, measured and maintained;

c. Detailed description of the monitoring devices, equipment and associated activities;

d. At a minimum, twice a month representative effluent sampling and monitoring for the following pollutants of concern: pH (s.u.), total suspended solids, biochemical oxygen demand,$_{5\text{-day}}$, oil and grease, turbidity (NTU), total dissolved solids, copper, total, selenium, total, arsenic, total, mercury, total, chromium, total, lead, total, cadmium, total, zinc, total, nickel, total, ammonia, TKN, organic nitrogen, nitrate/nitrite, phosphorus, ortho phosphorus, and hardness;

e. At a minimum, once a month upstream and downstream stream representative sampling for the pollutants of concern listed above in Part III.C.7.d above;

f. Description of the sufficiently sensitive analytical methods employed; and

g. Description of data collection, record keeping and reporting to EPD.

EPD will evaluate the submitted data and determine if there is a reasonable potential for the discharge to cause or contribute to a violation of the instream water quality standards and if necessary, may open the permit to include applicable effluent limits to protect the receiving water body.

7. Implementation Schedule for Flue Gas Desulfurization (FGD) Wastewater

a. The effluent limitations and monitoring specified in Part I A.5 are effective on the effective date of this permit, except as specified below.

b. The permittee shall achieve compliance with the effluent limitations in Part I.A.5 for arsenic, total, mercury, total, selenium, total and nitrate/nitrite specified in Part I.A.5.b of this permit in accordance with the following schedule:

(i) Beginning on December 31, 2022, the permittee shall start monitoring and reporting for arsenic, total, mercury, total, selenium, total and nitrate/nitrite in accordance with Part I A.5.a of this permit.

(ii) No later than December 31, 2023, the permittee shall achieve compliance with the effluent limits for arsenic, total, mercury, total, selenium, total and nitrate/nitrite specified in Part I.A.5.b

c. The permittee shall submit a written progress report to EPD on June 30th and December 31st every year describing the status of achieving compliance with Part I.A.4 (discharges associated flue gas desulfurization wastewater) of this permit. The report shall also include the status of achieving compliance with the fly ash transport water and bottom ash transport water. The permittee shall submit the report to the EPD assigned Compliance Office and the Wastewater Regulatory Program.

D. Biomonitoring and Toxicity Reduction Requirements

1. The permittee shall comply with effluent standards or prohibitions established by section 307(a) of the Federal Act and with chapter 391-3-6-.03(5)(e) of the State Rules and may not discharge toxic pollutants in concentrations or combinations that are harmful to humans, animals, or aquatic life.

If toxicity is suspected in the effluent, EPD may require the permittee to perform any of the following actions:

a. Acute biomonitoring tests;

b. Chronic biomonitoring tests;

c. Stream studies;

d. Priority pollutant analyses;

e. Toxicity reduction evaluations (TRE); or

f. Any other appropriate study.

2. EPD will specify the requirements and methodologies for performing any of these tests or studies. Unless other concentrations are specified by EPD, the critical concentration used to determine toxicity in biomonitoring tests will be the effluent instream wastewater concentration (IWC) based on the representative plant flow of the facility and the critical low flow of the receiving stream (7Q10). The endpoints that will be reported are the effluent concentration that is lethal to 50% of the test organisms (LC50) if the test is for acute toxicity, and the no observed effect concentration (NOEC) of effluent if the test is for chronic toxicity.

   The permittee must eliminate effluent toxicity and supply EPD with data and evidence to confirm toxicity elimination.

E. Coal Ash Pond Impoundment Integrity

Imminent impoundment failure conditions shall be reported **immediately** to the designated local entity in the County with responsibility for emergency management and EPD's 24 hour Emergency Response contact.

1. Operation and Maintenance

   a. The following impoundments that are used to hold or treat wastewater and associated waste materials shall be operated and maintained to prevent the discharge of pollutants to waters of the united states, except as authorized under this permit, as follows:

      i. Ash Pond 1
      ii. Ash Pond 2
      iii. Ash Pond 3
      iv. Ash Pond 4

   b. When practicable, piezometers or other appropriate instrumentation shall be installed as a means of assessing impoundment integrity.

   c. Within 90 days of the effective date of this permit, the permittee shall submit a report that identifies and shows the location of all pipes, utilities or other penetrations through or beneath the impoundment(s). A Georgia-registered professional engineer must certify in the report what, if any, pipes, utilities, and penetrations exist and their condition. The report must address these penetrations and provide an inspection frequency and method of evaluation for them.

2. Inspections

   a. Inspections of dams, dikes and toe areas for erosion shall, at a minimum, include observations of:

      I. Cracks or bulges;
      II. Subsidence;
      III. Wet or soft soil;
      IV. Changes in geometry;
      V. Elevation of the impounded water and freeboard, depth of sediment and slurry;
      VI. Changes in vegetation such as being overly lush;
      VII. Obstructive vegetation and trees;
      VIII. Animal burrows;
      IX. Changes to liners (if applicable);
      X. Spillway integrity; and
      XI. Any other changes which may indicate a potential compromise to impoundment integrity.

   b. All impoundments shall be inspected at least **weekly** by qualified personnel with knowledge and training in impoundment integrity.

c. All impoundments shall be inspected annually by a State-registered professional engineer or professional geologist with knowledge and training in impoundment integrity.

d. The findings of each inspection shall be documented in a written inspection report and the personnel conducting the inspection will certify that the inspection occurred.

e. The certified inspection report shall be submitted to EPD annually by June 30th.

3. Corrective Measures

a. For Category I structures or structures regulated under the Safe Dams Act, the permittee shall coordinate with EPD (EPD's Safe Dams Unit, EPD assigned Compliance Office, and EPD's Emergency Response Contact) and the permittee's Engineer of Record **immediately (within 24 hours)** after discovering any changes that may be signs of an imminent impoundment failure, or potentially significant compromise to the structural integrity of the impoundment; such as, but not limited to, significant increases in seepage or seepage carrying sediment, or as the formation of large cracks, slumping, or new wet areas not related to recent precipitation.

b. For structures not regulated by the Safe Dams Act, the permittee shall retain a qualified professional and coordinate with EPD (EPD's Safe Dams Unit, EPD assigned Compliance Office, and EPD's Emergency Response Contact) **immediately (within 24 hours)** after discovering any changes that may be signs of an imminent impoundment failure, or potentially significant compromise to the structural integrity of the impoundment; such as, but not limited to, significant increases in seepage or seepage carrying sediment or the formation of large cracks, slumping, or new wet areas not related to recent precipitation.

c. The permittee shall begin the corrective measures agreed upon by EPD and the permittee **within 60 days** of first observing any other issues which may have long term impacts on the structural integrity of the impoundment, such as trees growing on the impoundment or vegetation blocking spillways, culverts or other drainage pathways.

4. Reporting and Recordkeeping Requirements

a. **Within 5 days** of discovering conditions that indicate a potentially significant compromise to the structural integrity of the impoundment, the permittee must notify EPD (EPD's Safe Dams Unit and EPD assigned Compliance Office) in writing, describing the findings of the inspection, corrective actions taken, and expected outcomes.

b. The permittee shall maintain records of all impoundment inspection and maintenance activities, including corrective actions made in response to inspections and all other activities undertaken to repair or maintain the impoundments referenced in this permit. All records shall be retained, and made available to State or Federal inspectors upon request.

c. The permittee shall submit an **annual report** to EPD by June 30th, summarizing findings of all monitoring activities, inspections and corrective measures pertaining to the structural integrity, operation and maintenance of all impoundments referenced in this permit.

d. All pertinent impoundment permits, design, construction, operation, and maintenance information, including but not limited to: plans, geotechnical and structural integrity studies, copies of permits, associated documentation of certifications by all qualified personnel, State-registered professional engineers, professional geologists, and regulatory approvals, shall be retained and made available to State or Federal inspectors upon request.

e. The permittee shall maintain the applicable certification and training records of the personnel that conducted the inspections required under this Section.

5. Once the issuance of the Coal Combustion Residuals (CCR) permit is a final action of the Director and as required under Chapter 391-3-4 Rules for Solid Waste Management, the permittee shall no longer be subject to the requirements specified in Part III.D of this NPDES permit for that Ash Pond or, if collectively, for all the Ash Ponds.

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Name of Facility Plant Hammond

NPDES Permit No. GA0001457

This permit is a reissuance of an extended NPDES permit for Georgia Power Plant Hammond. The facility discharges a maximum of 668.32 MGD of steam electric power generating wastewater. This facility discharges to the Coosa River in the Coosa River Basin. The permit expired on June 30, 2012 and became administratively extended on June 29, 2012.

The permit was placed on public notice from XXXX to XXXXX.

Please Note The Following Changes to the Proposed NPDES Permit From The Existing Permit

Part I.A.1.a & b – Effluent Limitations and Monitoring Requirements

- ☐ Removed temperature in-stream limits of 90 °F and / or 5 °F since Water Quality (WQ) Waste Load Allocation (WLA) for thermal loading limits have been added based on stream flow.
- ☐ Added temperature monitoring to validate model.
- ☐ Removed monitoring only for ammonia since the ammonia value reported in the permit application was none detected.

Part I.A.1.a – Effluent Limitations and Monitoring Requirements

- ☐ Added WQ-WLA for thermal loading limits based on stream flow in Million British Thermal Units (MBTU).

Part I.A.2. – Effluent Limitations and Monitoring Requirements

- ☐ Removed temperature in-stream limits of 90 °F and 5 °F since Water Quality (WQ) Waste Load Allocation (WLA) thermal loading discharge limits have been added.

Part I.A.3. – Effluent Limitations and Monitoring Requirements

- ☐ Removed outfall 0B – Transport Water Blowdown and monitoring requirements since the wastewater does not discharge directly into Coosa River but into outfall 01.
- ☐ Added outfall 01I - Chemical Cleaning Waste Basin discharge.
- ☐ Added average daily and maximum daily limits of 1.0 mg/L for copper, total, based on best available technology economically achievable (BAT) in accordance with 40 CFR 423.13(e).
- ☐ Added average daily and maximum daily limits of 1.0 mg/L for iron, total, based on best available technology economically achievable (BAT) in accordance with 40 CFR 423.13(e).
- ☐ Removed outfall 06

Part I.A.5.a & b – Effluent Limitations and Monitoring Requirements

- ☐ Added outfall 01N – Flue Gas Desulfurization (FGD) in accordance with 40 CFR 423.13(g)(3)(i).
- ☐ Added monitoring and daily maximum effluent limit of for arsenic, total, in accordance with 40

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CFR 423.13(g)(3)(i).

- ☐ Added monitoring, average daily and daily maximum effluent limits for mercury, total, in accordance with 40 CFR 423.13(g)(3)(i).
- ☐ Added monitoring and daily maximum effluent limit for selenium, total, in accordance with 40 CFR 423.13(g)(3)(i).
- ☐ Added monitoring, average daily and daily maximum effluent limits for nitrate/nitrite in accordance with 40 CFR 423.13(g)(3)(i).
- ☐ Removed outfall 06 – Coal Pile Runoff Pond Emergency Overflow and monitoring requirements since the discharge has been eliminated.

Part I.A.5. – Effluent Limitations and Monitoring Requirements

- ☐ Removed outfall 02 – Ash Pond Emergency Overflow (Smith Cabin Creek) and monitoring requirements since the discharge has been eliminated.
- ☐ Removed outfall 07 – Ash Pond 1 Emergency Overflow and monitoring requirements since the discharge has been eliminated.
- ☐ Removed outfall 01G – Building Sump Emergency Bypass since it does not directly discharge into the Coosa River but into outfall 01.
- ☐ Removed outfall 01K – Switchyard Non-Contact Cooling Water (Units 1, 2, & 3) since it does not directly discharge into the Coosa River but into outfall 01.
- ☐ Removed outfall 01L – Switchyard Non-Contact Cooling Water (Unit 4) since it does not directly discharge into the Coosa River but into outfall 01.
- ☐ Removed outfall 08 – Carwash Runoff - Stormwater since the discharge has been eliminated.
- ☐ Removed outfall 11 – Gypsum & Limestone Handling Area Sump Emergency Overflow and monitoring requirements since the discharge has been eliminated.

Part I.A.6. – Effluent Limitations and Monitoring Requirements

- ☐ Added WQBEL daily average daily effluent limit for cadmium, total, to outfall 10 based on the reasonable potential analysis calculation.
- ☐ Added WQBEL daily average daily effluent limit for cadmium, total, to outfall 10 based on the reasonable potential analysis calculation.

Part III.B. Special Requirements / Conditions

- ☐ Paragraph 2 has been removed since metal cleaning waste monitoring and effluent limits are required in Part I.A.3 table.
- ☐ Paragraph 3 has been removed since metal cleaning waste monitoring and effluent limits are required in Part I.A.3 table.
- ☐ Paragraph 6 has been removed since the requirement is not needed in the permit.
- ☐ Paragraph 7 has been removed since the requirement is not needed in the permit.
- ☐ Paragraphs 8 thru 19 since the requirements are not needed in the permit.
- ☐ Paragraph 4 has been added to address §316(b) of the Clean Water Act (CWA) & Cooling Water Intake Structures.
- ☐ Paragraph 5 has been added to address the revised § 40 C.F.R. Part 423 Steam Electric Power Generating Point Source Category Effluent Limit Guidelines.

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- ☐ Paragraph 6 has been added to address Coal Ash Dewatering Plans
- ☐ Paragraph 7 has been added to address the implementation schedule for flue gas desulfurization (FGD) wastewater.
- ☐ Part III.C – Biomonitoring and Toxicity Reduction Requirements have been modified in accordance the permit requirements.
- ☐ Part III.D – Impoundment Integrity inspection language requirement has been added to the permit.

Standard Conditions & Boilerplate Modifications

The permit boilerplate includes modified language or added language consistent with other NPDES permits.

Final Permit Determinations and Public Comments

☐ Final issued permit did not change from the draft permit placed on public notice.

☐ Final permit includes changes from the draft permit placed on public notice. See attached permit addendum and/or permit fact sheet addendum.

☐ Public comments were received during public notice period.

☐ Public hearing was held.

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The Georgia Environmental Protection Division proposes to issue an NPDES permit to the applicant identified below. The draft permit places conditions on the discharge of pollutants from the power plant to waters of the State.

Technical Contact: Audra Dickson *(audra.dickson@dnr.ga.gov)*
404-463-4934

Draft permit:

- ☐ first issuance
- ☐ reissuance with no or minor modifications from previous permit
- ☒ reissuance with substantial modifications from previous permit
- ☐ modification of existing permit
- ☒ requires EPA review

1. FACILITY INFORMATION

1.1 NPDES Permit No.: GA0001457

1.2 Name and Address of Owner/Applicant

Georgia Power Company
Plant Hammond
241 Ralph McGill Boulevard, NE
Atlanta, Georgia 30308

1.3 Name and Address of Facility

Plant Hammond
5963 Alabama Highway, S.W.
Rome, Georgia, 30165
(Floyd County)

1.4 Location and Description of the discharge (as reported by applicant)

	Outfall ID	Latitude	Longitude	Receiving Waterbody
main outfall	01	34° 15' 02"	-85° 20' 43"	Coosa River
Emergency overflow	03	34° 14' 58"	-85° 21' 15"	Coosa River
	04	34° 15' 01"	-85° 22' 16"	Coosa River
intake	05	34° 14' 58"	-85° 20' 35"	Coosa River
emergency overflow	10	34° 15' 38"	-85° 20' 11"	Smith Cabin Creek

1.5 Production Capacity: N/A

1.6 SIC Code & Description: 4911 – Generation of electricity

1.7 Description of Industrial Processes: Generation of electricity through combustion of fossil fuels. Plant Hammond is an 865- megawatt (MW) steam electric power generating facility.

1.8 Description of the Wastewater Treatment Facility

See Attached Appendix C of this Fact Sheet for Process Flow Line Diagram

Outfall	Operation Description	Treatment Description
01	Final plant discharge commingled with stormwater	Chlorination disinfection
01A	Once through cooling water	Chlorination disinfection
01B	Ash transport water blowdown commingled with stormwater	Sedimentation (Settling), & Flocculation
01C	Low volume wastes (boiler blowdown, floor drains, & water treatment plant	Reuse / recycle of treated effluent
01D	Coal pile runoff commingled with stormwater	Reuse / recycle of treated effluent
01E	Sewage treatment plant (Outfall 01 internal outfall)	Reuse / recycle of treated effluent
01F	Ash transport water commingled with stormwater	Sedimentation (Settling)
01G	Building sump emergency bypass	Treatment is not necessary
01H	Coal pile runoff pond overflow to ash pond (primary) commingled with stormwater	Reuse / recycle of treated effluent
01I	Cleaning chemical waste basin discharge	Chemical precipitation
01J	Deleted - outfall decommissioned	Discharge not authorized
01K	No. 1,2, & 3 Switchyard cooling water commingled with stormwater	Treatment is not necessary
01L	No. 4 Switchyard cooling water commingled with stormwater	Treatment is not necessary
01M	Priming water – Aux. cooling water	Reuse / recycle of treated effluent
01N	Flue gas desulfurization (FGD) wastewater	Sedimentation (Settling)
01O	Gypsum & limestone handling area runoff commingled with stormwater	Sedimentation (Settling)
02	Deleted - outfall decommissioned	Discharge not authorized
03	Ash pond #2 emergency overflow commingled with stormwater	Sedimentation (Settling)
04	Ash pond #4 emergency overflow comingled with stormwater	Sedimentation (Settling)
05	Intake water screen backwash	Treatment is not necessary
06	Deleted - outfall decommissioned	Discharge not authorized
07	Deleted - outfall decommissioned	Discharge not authorized
08	Deleted - outfall decommissioned	Discharge not authorized
09	Deleted - outfall decommissioned	Discharge not authorized
10	Ash pond #3 emergency overflow commingled with stormwater	Sedimentation (Settling)
11	Deleted - outfall decommissioned	Discharge not authorized

1.9 Type of Wastewater Discharge

☒ process wastewater ☒ stormwater

☒ domestic wastewater ☐ combined (describe)

☒ other (description) – *Low volume discharges associated with the power plant.*

1.10 Characterization of Effluent Discharge as Reported by Applicant

(Form 2C, Section V, Part A only. Please refer to the application for additional analysis)

1.10.a Outfall No. 01 - Final plant discharge commingled with stormwater

Effluent Characteristics (as Reported by Applicant)	Maximum Daily Value	Average Daily Value
Flow (MGD)	620	NA
Biochemical Oxygen Demand,5-day (mg/L)	Less than < 8.0	NA
Total Suspended Solids (mg/L)	34.0	NA
Temperature, Winter (°F)	72.86	NA
Temperature, Summer (°F)	87.98	NA
Ammonia (mg/L)	Less than < 0.1	NA
Total Phosphorus (mg/L)	0.22	NA

1.10.b Outfall No. 03 - Ash pond #2 emergency overflow commingled with stormwater

Effluent Characteristics (as Reported by Applicant)	Maximum Daily Value	Average Daily Value
Flow (MGD)	22	NA
Biochemical Oxygen Demand,5-day (mg/L)	Less than < 2.0	NA
Total Suspended Solids (mg/L)	43.9	NA
Temperature, Winter (°F)	47.3	NA
Temperature, Summer (°F)	Ambient	NA
Ammonia (mg/L)	0.18	NA
Total Phosphorus (mg/L)	Less than < 0.2	NA

1.10.c Outfall No. 04 - Ash pond #4 emergency overflow commingled with stormwater

Effluent Characteristics (as Reported by Applicant)	Maximum Daily Value	Average Daily Value
Flow (MGD)	22	NA
Biochemical Oxygen Demand,$_{5\text{-day}}$ (mg/L)	Less than < 2.0	NA
Total Suspended Solids (mg/L)	43.9	NA
Temperature, Winter (°F)	47.3	NA
Temperature, Summer (°F)	Ambient	NA
Ammonia (mg/L)	0.18	NA
Total Phosphorus (mg/L)	Less than < 0.2	NA

1.10.d Outfall No. 05 – Intake water screen backwash

Effluent Characteristics (as Reported by Applicant)	Maximum Daily Value	Average Daily Value
Flow (MGD)	2.16	NA
Biochemical Oxygen Demand,$_{5\text{-day}}$ (mg/L)	Less than < 8.0	NA
Total Suspended Solids (mg/L)	14.0	NA
Temperature, Winter (°F)	73.04	NA
Temperature, Summer (°F)	81.32	NA
Ammonia (mg/L)	0.12	NA
Total Phosphorus (mg/L)	0.16	NA

1.10.e Outfall No. 10 – Ash pond #3 emergency overflow commingled with stormwater

Effluent Characteristics (as Reported by Applicant)	Maximum Daily Value	Average Daily Value
Flow (MGD)	2.16	NA
Biochemical Oxygen Demand,5-day (mg/L)	Less than < 2.0	NA
Total Suspended Solids (mg/L)	43.9	NA
Temperature, Winter (°F)	47.03	NA
Temperature, Summer (°F)	Ambient	NA
Ammonia (mg/L)	0.18	NA
Total Phosphorus (mg/L)	Less than < 0.2	NA

2.0 APPLICABLE REGULATIONS

2.1 State Regulations

Chapter 391-3-6 of the Georgia Rules and Regulations for Water Quality Control

2.2 Federal Regulations

Source	Activity	Applicable Regulation
Generation of Electricity	Steam Electric Power Generating Point Source Category	40 CFR 122 40 CFR 125 40 CFR 423

2.3 Industrial Effluent Limit Guideline(s)

Code of Federal Regulations, 40 CFR Part 423 – Steam Electric Power Generating Point Source Category

See Appendix A of this Fact Sheet for a copy of the 40 CFR Part 423 – Steam Electric Power Generating Source Category regulations.

3. WATER QUALITY STANDARDS & RECEIVING WATERBODY INFORMATION

Section 301(b)(1)(C) of the Clean Water Act (CWA) requires the development of limitations in permits necessary to meet water quality standards. Federal Regulations 40 CFR 122.4(d) require that conditions in NPDES permits ensure compliance with the water quality standards which are composed of use classifications, numeric and or narrative water quality criteria and an anti-degradation policy. The use classification system designates the beneficial uses that each waterbody is expected to achieve, such as drinking water, fishing, or recreation. The numeric and narrative water quality criteria are deemed necessary to support the beneficial use classification for each water body. The antidegradation policy represents an approach to maintain and to protect various levels of water quality and uses.

3.1 Receiving Waterbody Classification and Information

SPECIFIC WATER QUALITY CRITERIA FOR CLASSIFIED WATER USAGE

Rules and Regulations of the State of Georgia 391-3-6-.03(6) – Fishing and Recreation

Fishing,

1. Dissolved Oxygen - A daily average of 6.0 mg/L and no less than 5.0 mg/L at all times for water designated as trout streams by the Wildlife Resources Division. A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times for waters supporting warm water species of fish.

2. pH - Within the range of 6.0 to 8.5.

3. Bacteria - For the months of May through October, when water contact recreation activities are expected to occur, fecal coliform not to exceed a geometric mean of 200 per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours. Should water quality and sanitary studies show fecal coliform levels from non-human sources exceed 200/100 mL (geometric mean) occasionally, then the allowable geometric mean fecal coliform shall not exceed 300 per 100 mL in lakes and reservoirs and 500 per 100 ml in free flowing freshwater streams. For the months of November through April, fecal coliform not to exceed a geometric mean of 1,000 per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours and not to exceed a maximum of 4,000 per 100 ml for any sample.

4. Temperature - Not to exceed 90°F. At no time is the temperature of the receiving waters to be increased more than 5°F above intake temperature except that in estuarine waters the increase will not be more than 1.5°F. In stream designated as secondary trout waters, there shall be no elevation exceeding 2°F natural stream temperatures.

5. Toxic Wastes, Other Deleterious Materials - None in concentrations that would harm man, fish, and game or other beneficial aquatic life.

Recreation

General recreational activities such as water skiing, boating, and swimming, or for any other use requiring water of a lower quality, such as recreational fishing. These criteria are not to be interpreted as encouraging water contact sports in proximity to sewage or industrial waste discharges regardless of treatment requirements:

(i) Bacteria:

1. Coastal waters: Culturable enterococci not to exceed a geometric mean of 35 CFU (colony forming units) per 100 mL. The geometric mean duration shall not be greater than 30 days. There shall be no greater than a ten percent excursion frequency of an enterococci statistical threshold value (STV) of 130 CFU per 100 mL the same 30-day interval.

2. All other recreational waters: Culturable E. coli not to exceed a geometric mean of 126 CFU (colony forming units) per 100 mL. The geometric mean duration shall not be greater than 30 days. There shall be no greater than a ten percent excursion frequency of an E. coli statistical threshold value (STV) of 410 CFU per 100 mL in the same 30-day interval.

(ii) Dissolved Oxygen: A daily average of 6.0 mg/L and no less than 5.0 mg/L at all times for waters designated as trout streams by the Wildlife Resources Division. A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times for waters supporting warm water species of fish.

(iii) pH: Within the range of 6.0 - 8.5.

(iv) Temperature: Not to exceed 90°F. At no time is the temperature of the receiving waters to be increased more than 5°F above intake temperature except that in estuarine waters the increase will not be more than 1.5°F. In streams designated as primary trout or smallmouth bass waters by the Wildlife Resources Division, there shall be no elevation of natural stream temperatures. In streams designated as secondary trout waters, there shall be no elevation exceeding 2°F natural stream temperatures.

3.2 Ambient Information

Outfall ID	7Q10[1] (cfs)	1Q10 (cfs)	Hardness (mg/L)	Annual Average Flow (cfs)	Upstream Total Suspended Solids (mg/l)
01	1162	1162	37	6800	30
03	1162	1162	37	6800	30
04	1163	1163	37	6808	30
05	1138	1138	37	6793	30
10	3.2	2.9	37	22	11

[1] EPD used the U.S. Army Corps of Engineers Water Control Manual Plan G flows for the reasonable potential analysis.

3.3 Georgia 305(b)/303(d) List Documents

Coosa River is listed as not supporting the designated use.

Reach Name/ ID #/ Data Source	Reach Location/ County	River Basin/ Use	Criterion Violated	Potential Causes	Extent		Category	Priority	Notes
Coosa River R031501050209 1,3,10	Beach Creek to Stateline Floyd County	Coosa Fishing/ Recreation	CFB, FCG(PCBs), DO, Temp, FC	I1, I2, NP	17	miles	4a,5	2015, 2018	Cause for Temp is I1. Cause for other parameters is I2 except for FC which has a cause of NP TMDLs completed CFB 2005 (revised 2009), FCG(PCBs) 2005 (revised 2009) & DO 2004 TMDL for Temperature is scheduled to be drafted in 2015 and the FC TMDL is scheduled to be drafted in 2018.

3.4 Total Maximum Daily Load (TMDL)

TMDLs were completed for Commercial Fishing Ban (CFB) in 2005 and revised in 2009 and 2014, Fish Consumption Guidance (FCG) for PCBs in 2005 and revised in 2009 and 2014 and Dissolved Oxygen (DO) in 2004. The associated heat loads provided in the associated TMDLs are not applicable to this permit. The permit limits in this permit, which are more stringent, supersede the 2004 DO TMDL heat allocation.

3.5 Wasteload Allocation Date: September 26, 2016

See Appendix B of this Fact Sheet for the Wasteload Allocation (WLA).

4. EFFLUENT LIMITS AND PERMIT CONDITIONS

4.1 Reasonable Potential Analysis (RP)

Title 40 of the Federal Code of Regulations, 40 CFR 122.44(d) requires delegated States to develop procedures for determining whether a discharge causes, has the reasonable potential to cause, or contributes to an instream excursion above a narrative or numeric criteria within a State water. If such reasonable potential is determined to exist, the NPDES permit must contain pollutant effluent limits and/or effluent limits for whole effluent toxicity. Georgia's Reasonable Potential Procedures are based on Georgia's Rules and Regulations for Water Quality Control (Rules), Chapter 391-3-6-.06(4)(d)5. The chemical specific and biomonitoring data and other pertinent information in EPD's files will be considered in accordance with the review procedures specified in the Rules in the evaluation of a permit application and in the evaluation of the reasonable potential for an effluent to cause an exceedence in the numeric or narrative criteria.

A Reasonable Potential Analysis was performed on the data submitted with the application and the results of those analyses are stated below in the following sections.

EPD evaluated the data provided in the application and supporting documents. If a pollutant is listed below, EPD determined it was a pollutant of concern and there may be a reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standards. If a pollutant is not listed below, EPD determined that the pollutant is not a pollutant of concern or has determined, based on the data provided in the application, there is no reasonable potential to cause or contribute to an instream violation of the GA Water Quality Standards. An example would be if the applicant reported "not detect," "below detection limit," or a value that was below the detection limit for a pollutant.

Based on the RP conducted for the discharges there is no need for WQBEL for metals for outfalls 01, 03, 04, and 05, except for outfall 10 which triggered a need for WQBEL for selenium, total and cadmium, total. See Appendix D - RP analysis spreadsheet calculation for each outfall attached to this Fact Sheet.

4.2 Whole Effluent Toxicity

Chronic WET test measures the effect of wastewater on indicator organisms' growth, reproduction and survival. Effluent toxicity is predicted when the No Observable Effect Concentrations for a test organism is less than the facility's Instream Wastewater Concentration.

Chronic testing for *Ceriodaphnia dubia* was conducted from November 10, 2015 thru November 17, 2015 and chronic testing for *Pimephales promelas* was conducted from December 1, 2015 thru December 8, 2015.

Results of the all aquatic biomonitoring tests indicated no statistically significant effect on survival for *C. dubia* or survival and growth or reproduction for *P. promelas* at up to 100% effluent concentration (i.e., NOEC > IWC). No toxic effects were detected.

4.3 Applicable Water Quality and Technology Based Effluent Limitations

Water Quality Based Effluent Limits (WQBELs)

When drafting a National Pollutant Discharge Elimination System (NPDES) permit, a permit writer must consider the impact of the proposed discharge on the quality of the receiving water. Water quality goals for a waterbody are defined by state water quality standards. By analyzing the effect of a discharge on the receiving water, a permit writer could find that technology-based effluent limitations (TBELs) alone will not achieve the applicable water quality standards. In such cases, the Clean Water Act (CWA) and its implementing regulations require development of water quality-based effluent limitations (WQBELs). WQBELs help meet the CWA objective of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters and the goal of water quality that provides for the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water (*fishable/swimmable*).

WQBELs are designed to protect water quality by ensuring that water quality standards are met in the receiving water and downstream uses are protected. On the basis of the requirements of Title 40 of the *Code of Federal Regulations* (CFR) 125.3(a), additional or more stringent effluent limitations and conditions, such as WQBELs, are imposed when TBELs are not sufficient to protect water quality.

The term *pollutant* is defined in CWA section 502(6) and § 122.2. Pollutants are grouped into three categories under the NPDES program: conventional, toxic, and nonconventional. Conventional pollutants are those defined in CWA section 304(a)(4) and § 401.16 (BOD_5, TSS, fecal coliform, pH, and oil and grease). Toxic (priority) pollutants are those defined in CWA section 307(a)(1) and include 126 metals and manmade organic compounds. Nonconventional pollutants are those that do not fall under either of the above categories (conventional or toxic pollutants) and include parameters such as chlorine, ammonia, nitrogen, phosphorus, chemical oxygen demand (COD), and whole effluent toxicity (WET).

Applicable Technology Based Effluent Limits (TBELs)

Technology-based effluent limitations aim to prevent pollution by requiring a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the United States. TBELs are developed independently of the potential impact of a discharge on the receiving water, which is addressed through water quality standards and water quality-based effluent limitations. The NPDES regulations at Title 40 of the Code of Federal Regulations 125.3(a) require NPDES permit writers to develop technology-based treatment requirements, consistent with CWA section 301(b), that represent the minimum level of control that must be imposed in a permit. The regulation also indicates that permit writers must include in permits additional or more stringent effluent limitations and conditions, including those necessary to protect water quality.

For pollutants not specifically regulated by Federal Effluent Limit Guidelines, the permit writer must identify any needed technology-based effluent limitations and utilize best professional judgment to establish technology-based limits or determine other appropriate means to control its discharge if there is a reasonable potential to cause or contribute to a violation of the water quality standards.

4.4 Conventional Pollutants

Pollutants of Concern	Outfall Number	Basis
pH	01	WQBEL The instream waste concentration is 47%. When the instream waste concentration is less than 50%, it results in no reasonable potential to cause or contribute to violation of the instream Georgia Water Quality Standard; therefore a limit of 6.0 s.u. to 9.0 s.u has been added.
		TBEL There is no applicable federal technology based effluent limit.
	03, 04	WQBEL The instream waste concentration is 3%. When the instream waste concentration is less than 50%, it results in no reasonable potential to cause or contribute to violation of the instream Georgia Water Quality Standard; therefore a limit of 6.0 s.u. to 9.0 s.u. has been added.
		TBEL The pH effluent limit of 6.0 s.u. to 9.0 s.u. is required under 40 CFR 423.12(b)(1) Best Practicable Control Technology Currently Available (BPT).
	10	WQBEL The instream waste concentration is 51%. When the instream waste concentration is greater than 50%, it results in a reasonable potential to cause or contribute to violation of the instream Georgia Water Quality Standard; therefore a limit of 6.0 s.u. to 8.5 s.u. has been added.
		TBEL The pH effluent limit of 6.0 s.u. to 9.0 s.u. is required under 40 CFR 423.12(b)(1) Best Practicable Control Technology Currently Available (BPT).
Total Suspended Solids (TSS)	01B, 01I, 03, 04, 10	WQBEL GA does not have a narrative Water Quality Standard for total suspended solids.
		TBEL The average daily and maximum daily limits for TSS of 30/100 mg/L are based on 40 CFR 423.12(b)(3) best practicable

		control technology currently available (BPT).
Oil & Grease	01B, 01I, 03, 04, 10	WQBEL GA has a narrative Water Quality Standard for oil & grease.
		TBEL The daily average and daily maximum limits for oil & grease of 15/20 mg/L are based on 40 CFR 423.12(b)(3) Best Practicable Control Technology Currently Available (BPT).
Temperature Maximum and Temperature Differential	01	WQBEL GA has in-stream temperature limits of 90 °F and 5 °F in accordance with Chapter 391-3-6-.03(6)(a)(v) of the Water Quality Standards. See Section 5.2 of this Fact Sheet for further discussion on the temperature effluent limits in MBTU and degrees Fahrenheit.
		TBEL There is no applicable federal technology based effluent limit.
Total Phosphorus	01	WQBEL Per EPD Strategy for Total Phosphorus effluent limit of 1.0 mg/L is needed in the permit, but 0.22 mg/L was reported in the permit application, hence there is no reasonable potential to exceed the Strategies limit of 1 mg/L. An effluent limit is not recommended in the permit.
		TBEL There is no applicable federal technology based effluent limit.

4.5 Nonconventional Pollutants

Pollutants of Concern	Outfall Number	Basis
Total Residual Chlorine (TRC)	01A	WQBEL GA does not have Water Quality Standards for internal discharges.
		TBEL The effluent limit of 0.2 mg/L for TRC is based on 40 CFR 423.13(b)(1) BAT.

Nitrate/Nitrite as N	01N	WQBEL GA does not have Water Quality Standard for internal discharges.
		TBEL The daily average and daily maximum limit of 4.4/17 for nitrate/nitrite is based on 40 CFR 423.13(g)(1)(i) BAT. The facility is required to comply with these limits by December 31, 2023. See Section 5.1 of the Fact Sheet for further discussion on the Compliance Schedule.

4.6 Toxics & Manmade Organic Compounds (126 Priority Pollutants and Metals)

Pollutants of Concern	Outfall Number	Basis
Copper, Total	011	WQBEL GA does not have Water Quality Standards for internal discharges.
		TBEL The daily average and daily maximum effluent limit of 1.0 mg/L for copper is based on 40 CFR 423.13(e) Best Available Technology Economically Achievable (BAT).
Iron, Total	011	WQBEL GA does not have Water Quality Standards for internal discharges.
		TBEL The daily average and daily maximum effluent limit of 1.0 mg/L for iron is based on 40 CFR 423.13(e) Best Available Technology Economically Achievable (BAT).
Mercury, Total	01N	WQBEL GA does not have Water Quality Standards for internal discharges.
		TBEL The daily average and daily maximum limits of 356/788 ng/L for mercury are based on 40 CFR 423.13(g)(1)(i) BAT. The facility is required to comply with these limits by December 31, 2023. See Section 5.1 of the Fact Sheet for further discussion on the Implementation Schedule.

Arsenic, Total	01N	WQBEL GA does not have Water Quality Standards for internal discharges.
		TBEL The daily average and daily maximum limit of 8/11µg/L for arsenic is based on 40 CFR 423.13(g)(1)(i) BAT. The facility is required to comply with these limits by December 31, 2023. See Section 5.1 of the Fact Sheet for further discussion on the Implementation Schedule.
Selenium, Total	01N	WQBEL GA does not have Water Quality Standards for internal discharges.
		TBEL The daily average and maximum daily of 12/23 µg/L for selenium is based on 40 CFR 423.13(g)(1)(i) BAT. The facility is required to comply with these limits by December 31, 2023. See Section 5.1 of the Fact Sheet for further discussion on the Implementation Schedule.
Selenium, Total	10	WQBEL The daily average and daily maximum limit of 0.0098 mg/L and 0.0147 mg/L for selenium are based on calculated WQBEL. The daily maximum is calculated by multiplying the daily average by 1.5. See Appendix D for RPA calculation.
		TBEL There is no applicable federal technology based effluent limit.
Cadmium, Total	10	WQBEL The daily average and daily maximum limit of 0.0009 mg/L and 0.00135 mg/L for cadmium are based on calculated WQBEL. The daily maximum is calculated by multiplying the daily average by 1.5. See Appendix D for RPA calculation.
		TBEL There is no applicable federal technology based effluent limit.

4.7 Calculations for Water Quality Based Effluent Limits

4.7.a Instream Waste Concentration (IWC) Calculation

$$IWC = \frac{\text{Effluent Flow (gal/day)}}{\text{Effluent Flow (gal/day)} + 7Q10\text{ (gal/day)}}$$

Outfall 01

$$IWC = \frac{620 \times 10^6 \text{ gal/day}}{620 \times 10^6 \text{ gal/day} + 703 \times 10^6 \text{ gal/day}} \times 100\% = 47\%$$

Outfall 03

$$IWC = \frac{22 \times 10^6 \text{ gal/day}}{22 \times 10^6 \text{ gal/day} + 703 \times 10^6 \text{ gal/day}} \times 100\% = 3.0\%$$

Outfall 04

$$IWC = \frac{22 \times 10^6 \text{ gal/day}}{22 \times 10^6 \text{ gal/day} + 704 \times 10^6 \text{ gal/day}} \times 100\% = 3.0\%$$

Outfall 05

$$IWC = \frac{2.16 \times 10^6 \text{ gal/day}}{2.16 \times 10^6 \text{ gal/day} + 702 \times 10^6 \text{ gal/day}} \times 100\% = 0.31\%$$

Outfall 10

$$IWC = \frac{2.16 \times 10^6 \text{ gal/day}}{2.16 \times 10^6 \text{ gal/day} + 2.1 \times 10^6 \text{ gal/day}} \times 100\% = 51\%$$

Note: For conservatism, the 7Q10 flow of 1088 cfs and 1090 cfs for outfalls 03 and 04, and the 7Q10 of 3.2 cfs for outfall 10 were used in the IWC calculations based on the USACE proposed Plan G operations for Coosa River. The discharge from outfalls 03, 04, and 10 will only occur during an emergency due to significant rainfall event. The discharge flow reported in the permit application for outfalls 03, 04, and 10 were based on a 100-year 24 hour storm event since the permittée does not have actual discharges available for these outfalls.

4.7.b Metals

See the reasonable potential (RP) spreadsheet calculations tables for applicable metals in Appendix D of this Fact Sheet.

For conservatism, the USACE proposed Water Control Plan G operations were used for Coosa River 7Q10 and the reasonable potential analysis. The 7Q10 flow of 1088 cfs was used for outfalls 01 and 03, the 7Q10 flow of 1090 cfs was used for outfall 04, the 7Q10 of 1087 cfs was used for outfall 05, and the 7Q10 of 3.2 cfs was used for outfall 10. The discharges from outfalls 03, 04, and 10 will only occur during an emergency of a significant rainfall event. The discharge flow reported in the permit application for outfalls 03, 04 and 10 were based on a 100-year 24 hour storm event since the permittee does not have actual discharge flow to report. The WLA – Receiving Stream Flow Data is attached to Appendix B of this Fact Sheet.

4.8 Comparison & Summary of Water Quality vs. Technology Based Effluent Limits

After preparing and evaluating applicable technology-based effluent limitations and water quality-based effluent limitations, the most stringent limits are applied in the permit. Pollutants of concern with an effluent limit of monitor and report are not included in the below table.

Outfall 01

Parameter	WQBELs	TBELs	Explanation
pH (s.u.)	6.0 – 9.0	None	WQBEL- Water Quality Standard (WQS)
Temperature (°F)	See Section 5.2 below for thermal load discharge effluent limits	None	WQBEL WQS – WLA
Temperature & Temperature Differential Instream	Report	None	WQBEL WQS

Outfall 01A (internal outfall)

Parameter	WQBELs	TBELs	Explanation
Total Residual Chlorine (mg/L)	None	0.2	TBEL
Total Residual Time (Minute/day/unit)	None	120	TBEL

Outfall 01B (internal outfall)

Parameter	WQBELs	TBELs	Explanation
TSS (mg/L)	None	30/100	TBEL- BPT
Oil & Grease (mg/L)	GA Narrative WQS	15/20	TBEL-BPT

Outfall 01I (internal outfall)

Parameter	WQBELs	TBELs	Explanation
Copper, Total (mg/L)	None	1.0/1.0	TBEL- BAT
Iron, Total (mg/L)	None	1.0/1.0	TBEL-BAT
TSS (mg/L)	None	30/100	TBEL-BPT
Oil & Grease (mg/L)	None	15/20	TBEL-BPT

Outfall 01N (internal outfall)

Parameter	WQBELs	TBELs	Explanation
Arsenic, Total (µg/L)	None	8/11	TBEL--BAT
Mercury, Total (ng/L)	None	356/788	TBEL- BAT
Selenium, Total (µg/L)	None	12/23	TBEL-BAT
Nitrate/Nitrite as N (mg/L)	None	4.4/17	TBEL-BAT

Outfalls 03 & 04

Parameter	WQBELs	TBELs	Explanation
TSS (mg/L)	None	30/100	TBEL-BPT
Oil & Grease (mg/L)	GA Narrative WQS	15/20	TBEL-BPT
pH (s.u.)	6.0 – 9.0	6.0 – 9.0	WQBEL- WQS

Outfall 10

Parameter	WQBELs	TBELs	Explanation
TSS (mg/L)	None	30/100	TBEL-BPT
Oil & Grease (mg/L)	GA Narrative WQS	15/20	TBEL-BPT
Selenium, Total (mg/L)	0.0098/0.0147	None	WQBEL
Cadmium, Total (mg/L)	0.0009/0.00135	None	WQBEL
pH (s.u.)	6.0 – 8.5	6.0 – 9.0	WQBEL-WQS

5.0 Other Permit Requirements and Considerations

5.1 Permit Conditions

a. Total Residual Chlorine

i. The permittee may not discharge total residual chlorine (TRC) from any single generating unit for more than two hours per day unless the permittee demonstrates to EPD that discharge for more than two hours is required for macroinvertebrate control. Simultaneous multi-unit chlorination is permitted; and

ii. The TRC maximum is the instantaneous maximum which may occur at any time. The permittee shall develop a system for monitoring and recording the total time of TRC discharges. The results shall be reported in a suitably concise form beginning with the first scheduled Operation Monitoring Report (OMR) and continuing on each OMR thereafter.

b. No Discharge of Polychlorinated Biphenyl Compounds

There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

c. Chemical Metal Cleaning Wastes

The permittee shall contain any chemical metal cleaning wastes generated for further treatment or disposal in a manner to meet the permit effluent limits specified in Part I.A.3 table prior to discharge. This requirement also applies to any preoperational chemical cleaning of metal process equipment. The permittee shall describe the treatment and disposal procedures in the OMR submittal in accordance with Part I.D. of this permit.

d. §316(b) of the Clean Water Act (CWA) & Cooling Water Intake Structures

The permittee is subject to the EPA's §316(b) of the Clean Water Act (CWA) regulation for existing facilities and the current permit expired before July 14, 2018. Therefore, the permittee must submit to the EPD the information required in the applicable provisions of 40 CFR 122.21(r) – Application Requirements for Facilities with Cooling Water Intake Structures, when applying for the subsequent permit. The permittee requested this

extension in accordance with the Rule and issuance of this permit constitutes EPD's approval of this request.

e. § 40 C.F.R. Part 423 Steam Electric Power Generating Point Source Category
The permittee is subject to the EPA's 40 CFR Part 423 regulation for existing facilities. The permittee must comply with the new federal regulations as described in 40 CFR 423 for the flue gas desulfurization water, 40 CFR 423.1(g), fly ash transport water, 40 CFR 423.13(h), and bottom ash transport water, 40 CFR 423.13(k) by December 31, 2023.

f. Coal Ash Pond Dewatering
Effective on January 4, 2016, Technology Based Effluent Limits were developed by EPA in 40 CFR Part 423, for the discharges associated with coal ash ponds. This facility is not currently undergoing any activities associated with the dewatering of the coal ash ponds. However, there is a potential for dewatering activities to initiate prior to the end of the permit term. EPD is requiring the permittee to submit a Coal Ash Pond Dewatering Plan (Plan) for review and approval at least 90 days prior to starting any coal ash pond dewatering activities. The timeframe will allow EPD the necessary time to review the Plan, conduct a site visit, if necessary, and address any concerns.

Additionally, the Plan must contain at a minimum the following components

1) Detailed description of the wastewater treatment system components, flow schematics, and appropriate maps of the site;
2) Detailed description of the process controls being installed, measured and maintained;
3) Detailed description of the monitoring devices, equipment and associated activities;
4) At a minimum, twice a month representative effluent sampling and monitoring for the following pollutants of concern: pH (s.u.), total suspended solids, biochemical oxygen demand,$_{5\text{-day}}$,, oil and grease, turbidity (NTU), total dissolved solids, copper, total, selenium, total, arsenic, total, mercury, total, chromium, total, lead, total, cadmium, total, zinc, total, nickel, total, ammonia, TKN, organic nitrogen, nitrate/nitrite, phosphorus, ortho-phosphorus, and hardness;
5) At a minimum, once a month upstream and downstream stream representative sampling for the pollutants of concern listed above;
6) Description of the sufficiently sensitive analytical methods; and
7) Description of data collection, record keeping and reporting to EPD. EPD will evaluate the submitted data and determine if there is a reasonable potential for the discharge to cause or contribute to a violation of the instream water quality standards and if necessary, may open the permit to include applicable effluent limits to protect the receiving water body.

g. Implementation Schedule for Flue Gas Desulfurization FGD Wastewater, 40 CFR 423.1(g), Fly Ash Transport Waster, 40 CFR 423.13(h), and Bottom Ash Transport Water, 40 CFR 423.13(k)
On January 4, 2016, the final rule, 40 CFR Part 423 became effective. As described in EPA's Fact Sheet, "the final rule phases in the new, more stringent requirements in the form of effluent limits for arsenic, mercury, selenium, and nitrate-nitrite for wastewater discharged from wet scrubber systems (flue gas desulfurization wastestream) and zero discharge of pollutants in ash transport water that must be incorporated into the plants'

NPDES permits." Additionally, the following paragraphs are direct language from the Supplementary Information, Preamble to the 40 CFR Part 423 published by EPA and emphasis has been applied to applicable language.

For existing direct discharge sources, "the final rule establishes effluent limitations based on Best Available Technology Economically Achievable (BAT). BAT is based on technological availability, economic achievability, and other statutory factors and is intended to reflect the highest performance in the industry." For this facility, the "final rule establishes BAT limitations as follows:

- For fly ash transport water, and bottom ash transport water, , there are two sets of BAT limitations. The first set of BAT limitations is a numeric effluent limitation on Total Suspended Solids (TSS) in the discharge of these wastewaters (these limitations are equal to the TSS limitations in the previously established Best Practicable Control Technology Currently Available (BPT) regulations). The second set of BAT limitations is a zero discharge limitation for all pollutants in these wastewaters.
- For FGD wastewater, there are two sets of BAT limitations. The first set of limitations is a numeric effluent limitation on TSS and O&G in the discharge of FGD wastewater (these limitations are equal to the TSS limitations in the previously established BPT regulations for low volume waste). The second set of BAT limitations is numeric effluent limitations on mercury, arsenic, selenium, and nitrate/nitrite as N in the discharge of FGD wastewater.
- The direct discharge limitations in this rule apply only when implemented in an NPDES permit issued to a discharger after the effective date of this rule. Under the CWA, the permitting authority must incorporate these ELGs into NPDES permits as a floor or a minimum level of control. While the rule is effective on its effective date," January 4, 2016, "the rule allows a permitting authority to determine a date when the new effluent limitations for FGD wastewater, fly ash transport water and bottom ash transport water." "*The permitting authority must make these final effluent limitations applicable on or after November 1, 2018. For any final effluent limitation that is specified to become applicable after November 1, 2018, the specified date must be as soon as possible, but in no case later than December 31, 2023.* "

Regardless of when a plant's NPDES permit is ready for renewal, *the plant should immediately begin evaluating how it intends to comply with the requirements of the final ELGs. In cases where significant changes in operation are appropriate, the plant should discuss such changes with the permitting authority and evaluate appropriate steps and a timeline for the changes, even prior to the permit renewal process.*

In cases where a plant's final NPDES permit will be issued after the effective date of the final ELGs, but before November 1, 2018, the permitting authority should apply limitations based on the previously promulgated BPT limitations or the plant's other applicable permit limitations until at least November 1, 2018. The permitting authority should also determine what date represents the soonest date, beginning November 1, 2018, that the plant can meet the final BAT limitations in this rule. The permit should require compliance with the final BAT limitations by that date, making clear that in no case shall the limitations apply later than December 31, 2023. Then, for permits that

might be administratively continued, the final date will apply, even if that date is at the end of the implementation period. For permits that are issued on or after November 1, 2018, the permitting authority should determine the earliest possible date that the plant can meet the limitations in this rule (but in no case later than December 31, 2023), and apply the final limitations as of that date (BPT limitations or the plant's other applicable permit limitations would apply until such date).

As specified by the rule, the "as soon as possible" date determined by the permitting authority is November 1, 2018, unless the permitting authority determines another date after receiving information submitted by the discharger. Assuming that *the permitting authority receives relevant information from the discharger, in order to determine what date is "as soon as possible" within the implementation period, the permitting authority must then consider the following factors:*

(a) Time to expeditiously plan (including to raise capital), design, procure, and install equipment to comply with the requirements of the final rule;

(b) Changes being made or planned at the plant in response to greenhouse gas regulations for new or existing fossil fuel-fired power plants under the Clean Air Act, as well as regulations for the disposal of coal combustion residuals under subtitle D of the Resource Conservation and Recovery Act;

(c) For FGD wastewater requirements only, an initial commissioning period to optimize the installed equipment; and

(d) Other factors as appropriate."

Chapter 391-3-6-.06(10)(a) of the Georgia Rules and Regulations requires the Director to determine the shortest reasonable period of time necessary to achieve such compliance, but in no case later than an applicable statutory deadline. The Federal statutory deadline for the applicable wastestreams is December 31, 2023. The permittee submitted relevant information in a document, entitled "Plant Hammond Effluent Limitation Guidelines Rule Applicability Timing NPDES Permit Application 2016" with the NPDES application.

Additionally, Stipulation No. 15 of the Public Service Commission's (PSC) Final Order approving Georgia Powers Company's 2016 Integrated Resource Plan (IRP), Docket Nos. 40161 & 40162 included a stipulation to minimize capital expenditures at Plant Hammond through July 31, 2019. At that time, Georgia Powers Company and the PSC will further evaluate, through the IRP, the impact of all environmental regulations, fuel costs, and other factors related to continued operations of Plant Hammond, and as such Georgia Power Company will be better informed and be able to provide EPD explicit details on meeting the implementation schedule.

EPD has reviewed the submitted information and determined the permittee has demonstrated good faith efforts to comply with the new rules, and will need an extended timeframe, past November 1, 2018, to implement the necessary changes to comply with the rules. As stated in the EPA document, *Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category: EPA's Response to Public Comments*, "The time provided for in the rule allows the permitting

authority to account for time the facility needs to coordinate all the requirements of this rule, along with other regulatory requirements, to make the correct planning and financing decisions, and to implement the new requirements in an orderly and feasible way....given the extent of the capital expenditure and the complexity of these facilities, it is reasonable (referring to the deadline year 2023)."

The permittee must comply with the new federal regulations as described in 40 CFR 423 for the flue gas desulfurization water, 40 CFR 423.1(g), fly ash transport water, 40 CFR 423.13(h), and bottom ash transport water, 40 CFR 423.13(k) by December 31, 2023.

h. Coal Ash Pond Impoundment Integrity

Part III.E of the permit requires inspections, record keeping and reporting and corrective measures to ensure the integrity of the coal ash pond impoundments.

5.2 Thermal Waste Load Allocation (WLA)- See Appendix B of this Fact Sheet for the Thermal Waste Load Allocation

The water quality modeling done for this WLA for Plant Hammond used the EPDRiv1 hydrodynamic water quality model developed for the Coosa River Basin Modeling Project. The model includes the 4 upstream HUC 8 watersheds (Conasauga, Etowah, Oostanaula, and Coosawattee), as well as the portion of the Upper Coosa watershed to the Alabama state line. Hydrodynamic and time-varying water-quality modeling is necessary for this section of the River because of its hydrodynamic and water quality complexity, and the significance, magnitude, and costs of the regulatory decisions being addressed. The major components of the model include variable releases from Carter's and Allatoona Reservoirs/Dams and 36 upstream tributary watersheds, 11 mainstem wastewater treatment plant discharges, 11 municipal or private water withdrawals, and 2 electrical power generating facilities. The model was calibrated using intensive field study data collected in 2001, and recalibrated using data collected in 2005 and 2006.

The model was originally developed for the 2004 Total Maximum Daily Load (TMDL) Evaluation for Dissolved Oxygen (DO) in the Coosa River. The model utilized historical low flows, as well as the May 2003 *Alabama-Coosa-Tallapoosa Allocation Formula Agreement,* as the basis for the hydrodynamic inputs. However, due to the US Army Corps of Engineers recent record of decision to modify operations within the ACT basin, a different hydrodynamic approach was used for this modeling effort. The flow strategy, referred to as Plan G in the May 2015 *Record of Decision for Updates to the Master Water Control Manual for the Alabama-Coosa-Tallapoosa River Basin,* results in modified minimum stream flows at Mayo's Bar as illustrated below:

Monthly Critical Flows of the Coosa River at Mayo's Bar

Month	2004 Modeled Flow (cfs)	2016 Minimum Flow (cfs)

Month	2004 Modeled Flow (cfs)	2016 Minimum Flow (cfs)
January	2217	2402
February	2701	2584
March	2874	3288
April	2623	2735
May	2212	2561
June	1924	2236
July	1500	1713
August	1500	1348
September	1500	1157
October	1500	1281
November	1500	1541
December	2075	2180

EPDRiv1 requires site-specific meteorological parameters to perform water quality simulations. These data include cloud cover, wind speed, barometric pressure, wet bulb temperature, and dry bulb temperature, and were obtained from a meteorological station in Rome, GA. In this modeling effort, three different meteorological input files were used, spanning the years 2001, 2005, and 2006. Simulations were run with these 3 inputs to provide variability and to assess the effects of various meteorological conditions on the modeling results.

Thermal loadings in EPDRiv1 are processed as a volumetric flow rate with a corresponding temperature component. Since Plant Hammond utilizes a once-through cooling system, this model utilized the average cooling water flowrate as specified by Georgia Power (548 MGD), along with a temperature that varied by month. In order to accurately identify Plant Hammond's thermal impact to the River, modeling simulations were run with zero heat load from Plant Hammond, as a baseline. This represents the intake temperature as defined in Georgia's *Rules and Regulations for Water Quality Control, Section 391-3-6-.03.* Monthly heat loads were then added to the model to evaluate the temperature effects attributable to Plant Hammond. The temperature difference between simulations (Heat Load – Baseline) represents the maximum allowable thermal loading that can be allocated to Plant Hammond's cooling water system and still meet temperature standards downstream.

Total Maximum Daily Load

The results of the 2004 DO TMDL showed that reductions in oxygen-demanding discharges (UOD), as well as a reduction in the heat load discharged from Plant Hammond during the critical summer period, were necessary to meet instream DO standards at the state line. The modeling methodology used the total heat content of the discharge, which includes the ambient heat of the intake stream. The maximum allowable heat loads allocated to Plant Hammond are outlined below

2004 DO TMDL Modeled Heat Load Allocation

Month	**Permit Limits (MBTU/day)**[1]
June	450,126
July	474,709
August	469,792
September	396,046

[1] MBTU = Million British Thermal Units, daily maximum

Plant Hammond Heat Load WLA Modeling Results

The table below lists the results of the temperature modeling conducted for this WLA. The modeling was done utilizing minimum flow conditions as well as flows greater than the minimum. This will allow for a hydrograph controlled release to accommodate increased operational flexibility for the facility while maintaining protection of the receiving stream. For simplicity, numeric brackets have been assigned to flows to generate a range under which given thermal limits can be applied.

The results are grouped by months and correspond to the maximum allowable thermal loading for a given range of flows. The modeling methodology used the total heat rejection from the facility, which is the heat added by Plant Hammond to the cooling water discharged to the River, and is independent of the intake temperature. Modeling results predict that the temperature increase is the critical standard for most of the year, while in July the critical standard is the instream temperature.

In order to translate modeled temperatures into the thermal loads presented in the table below, the following equation was used:

$$\text{MBTU} = \sum \frac{Q\ (\text{cfs}) * 3{,}600\ (\text{sec/hour}) * \text{Spec Weight}\ (\text{lb/cf}) * \text{Spec Heat Capacity}\ (\text{BTU/lb}*^0\text{F}) * \text{Temp}\ (^0\text{F})}{10^6\ (\text{BTU/Million BTU})}$$

Where:
Q = cooling water flowrate across condensers
Specific Weight of water ~ 62.4 lb/cf
Specific Heat capacity of water = 1 BTU/lb*^{0}F
Temp = Temperature difference (Internal Outfall 01A Condenser Outlet – Internal Outfall 01A Condenser intake)

In the WLA modeling, the temperature difference was calculated using modeled intake and downstream temperatures in the equation above:

Results of Temperature Modeling

Flow at Mayos Bar USGS Gage 02397000	**Recommended Thermal Limits (MBTU/day)[1]**		
Range of Streamflow (cfs)	*August - June*	*July*	
> 3751	95,794	95,794	
3501 - 3750	95,794	92,299	
3251 - 3500	95,794	85,709	
3001 - 3250	88,825	79,118	
2751 - 3000	81,426	72,527	
2501 - 2750	74,026	65,936	
2251 - 2500	66,626	59,345	
2001 - 2250	59,227	52,754	
1751 - 2000	51,827	44,794	
1501 - 1750	44,427	33,824	
	September - June	July	August
1251 - 1500	37,028	26,968	37,028
1001 - 1250	29,628	18,740	28,339
751 - 1000	22,229	10,970	18,055
501 - 750	15,404	2,742	10,696

[1] MBTU = Million British Thermal Units, daily maximum

To allow for complete mixing of Plant Hammond's cooling water discharge with the receiving stream, the facility's instream temperature compliance point and boundary of the mixing zone is located ~3000 feet downstream of the discharge near the State Route 100 Bridge (River Mile 269.6). For the heat loads given in the table above, the simulations predict that the maximum instream temperature will remain below 90^0F at that location. The results also predict that the

maximum temperature increase will remain below 5^0F. For outfall no. 01, temperature monitoring is required in the permit to validate the model predictions.

5.3 Anti-Backsliding

The limits in this permit are in compliance with the 40 C.F.R. 122.44(l), which requires a reissued permit to be as stringent as the previous permit.

The daily effluent limitations on waste heat contained in this permit replace the quarterly instream temperature measurements required in the previous permit. Modeling shows that these effluent limits will meet the instream temperature water quality standard at the edge of the mixing zone. In EPD's 2004 Coosa River DO TMDL, thermal limits were proposed for Plant Hammond for the summer months. The thermal limits in this permit are year round and thus more stringent than the allowable heat loads contained in the 2004 TMDL.

6.0 REPORTING

The facility has been assigned to the following EPD office for reporting, compliance and enforcement.

Georgia Environmental Protection Division
Mountain District (Cartersville Office)
P.O. Box 3250
16 Center Road (30121)
Cartersville, Georgia 30120

6.1 E-Reporting

The permittee is required to electronically submit documents in accordance with 40 CFR Part 127.

7.0 REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

Not applicable

8.0 PERMIT EXPIRATION

The permit will expire five years from the effective date.

9.0 PROCEDURES FOR THE FORMULATION OF FINAL DETERMINATIONS

9.1 Comment Period

The Georgia Environmental Protection Division (EPD) proposes to issue a permit to this applicant subject to the effluent limitations and special conditions outlined above. These determinations are tentative.

Georgia Environmental Protection Division
Wastewater Regulatory Program
2 Martin Luther King Jr. Drive
Suite 1152 East
Atlanta, Georgia 30334

The permit application, draft permit, and other information are available for review at 2 Martin Luther King Jr. Drive, Suite 1152 East, Atlanta, Georgia 30334, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday. For additional information, you can contact 404-463-1511.

9.2 Public Comments

Persons wishing to comment upon or object to the proposed determinations are invited to submit same in writing to the EPD address above, or via e-mail at *EPDcomments@dnr.ga.gov* within 30 days of the initiation of the public comment period. All comments received prior to that date will be considered in the formulation of final determinations regarding the application. The permit number should be placed on the top of the first page of comments to ensure that your comments will be forwarded to the appropriate staff.

9.3 Public Hearing

Any applicant, affected state or interstate agency, the Regional Administrator of the U.S. Environmental Protection Agency (EPA) or any other interested agency, person or group of persons may request a public hearing with respect to an NPDES permit application if such request is filed within thirty (30) days following the date of the public notice for such application. Such request must indicate the interest of the party filing the request, the reasons why a hearing is requested, and those specific portions of the application or other NPDES form or information to be considered at the public hearing.

The Director shall hold a hearing if he determines that there is sufficient public interest in holding such a hearing. If a public hearing is held, notice of same shall be provided at least thirty (30) days in advance of the hearing date.

In the event that a public hearing is held, both oral and written comments will be accepted; however, for the accuracy of the record, written comments are encouraged. The Director or a designee reserves the right to fix reasonable limits on the time allowed for oral statements and such other procedural requirements, as deemed appropriate.

Following a public hearing, the Director, unless it is decided to deny the permit, may make such modifications in the terms and conditions of the proposed permit as may be appropriate and shall issue the permit.

If no public hearing is held, and, after review of the written comments received, the Director determines that a permit should be issued and that the determinations as set forth in the proposed permit are substantially unchanged, the permit will be issued and will become final in the absence of a request for a contested hearing. Notice of issuance or denial will be made available to all interested persons and those persons that submitted written comments to the Director on the proposed permit.

If no public hearing is held, but the Director determines, after a review of the written comments received, that a permit should be issued but that substantial changes in the proposed permit are warranted, public notice of the revised determinations will be given and written comments accepted in the same manner as the initial notice of application was given and written comments accepted pursuant to EPD Rules, Water Quality Control, subparagraph 391-3-6-.06(7)(b). The Director shall provide an opportunity for public hearing on the revised determinations. Such opportunity for public hearing and the issuance or denial of a permit thereafter shall be in accordance with the procedures as are set forth above.

A public hearing for this facility is scheduled for Wednesday, April 12, 2017 at 7:00 p.m. at the E.C.O Center in Floyd County at 393 Riverside Parkway Rome, Georgia 30161.

9.4 Final Determination

At the time that any final permit decision is made, the Director shall issue a response to comments. The issued permit and responses to comments can be can be found at the following address:

http://epd.georgia.gov/watershed-protection-branch-permit-and-public-comments-clearinghouse-0

9.5 Contested Hearings

Any person who is aggrieved or adversely affected by the issuance or denial of a permit by the Director of EPD may petition the Director for a hearing if such petition is filed in the office of the Director within thirty (30) days from the date of notice of such permit issuance or denial. Such hearing shall be held in accordance with the EPD Rules, Water Quality Control, subparagraph 391-3-6-.01.

Petitions for a contested hearing must include the following:

1. The name and address of the petitioner;
2. The grounds under which petitioner alleges to be aggrieved or adversely affected by the issuance or denial of a permit;
3. The reason or reasons why petitioner takes issue with the action of the Director;
4. All other matters asserted by petitioner which are relevant to the action in question.

Appendix A – 40 CFR 423 - Stream Electric Power Generating Regulations

§423.10 Applicability.

The provisions of this part apply to discharges resulting from the operation of a generating unit by an establishment whose generation of electricity is the predominant source of revenue or principal reason for operation, and whose generation of electricity results primarily from a process utilizing fossil-type fuel (coal, oil, or gas), fuel derived from fossil fuel (*e.g.,* petroleum coke, synthesis gas), or nuclear fuel in conjunction with a thermal cycle employing the steam water system as the thermodynamic medium. This part applies to discharges associated with both the combustion turbine and steam turbine portions of a combined cycle generating unit.

§423.11 Specialized definitions.

In addition to the definitions set forth in 40 CFR part 401, the following definitions apply to this part:

(a) The term *total residual chlorine* (or total residual oxidants for intake water with bromides) means the value obtained using any of the "chlorine—total residual" methods in Table IB in 40 CFR 136.3(a), or other methods approved by the permitting authority.

(b) The term *low volume waste sources* means, taken collectively as if from one source, wastewater from all sources except those for which specific limitations or standards are otherwise established in this part. Low volume waste sources include, but are not limited to, the following: Wastewaters from ion exchange water treatment systems, water treatment evaporator blowdown, laboratory and sampling streams, boiler blowdown, floor drains, cooling tower basin cleaning wastes, recirculating house service water systems, and wet scrubber air pollution control systems whose primary purpose is particulate removal. Sanitary wastes, air conditioning wastes, and wastewater from carbon capture or sequestration systems are not included in this definition.

(c) The term *chemical metal cleaning waste* means any wastewater resulting from the cleaning of any metal process equipment with chemical compounds, including, but not limited to, boiler tube cleaning.

(d) The term *metal cleaning waste* means any wastewater resulting from cleaning [with or without chemical cleaning compounds] any metal process equipment including, but not limited to, boiler tube cleaning, boiler fireside cleaning, and air preheater cleaning.

(e) The term *fly ash* means the ash that is carried out of the furnace by a gas stream and collected by a capture device such as a mechanical precipitator, electrostatic precipitator, or fabric filter. Economizer ash is included in this definition when it is collected with fly ash. Ash is not included in this definition when it is collected in wet scrubber air pollution control systems whose primary purpose is particulate removal.

(f) The term *bottom ash* means the ash, including boiler slag, which settles in the furnace or is dislodged from furnace walls. Economizer ash is included in this definition when it is collected

with bottom ash.

(g) The term *once through cooling water* means water passed through the main cooling condensers in one or two passes for the purpose of removing waste heat.

(h) The term *recirculated cooling water* means water which is passed through the main condensers for the purpose of removing waste heat, passed through a cooling device for the purpose of removing such heat from the water and then passed again, except for blowdown, through the main condenser.

(i) The term *10 year, 24/hour rainfall event* means a rainfall event with a probable recurrence interval of once in ten years as defined by the National Weather Service in Technical Paper No. 40. *Rainfall Frequency Atlas of the United States,* May 1961 or equivalent regional rainfall probability information developed therefrom.

(j) The term *blowdown* means the minimum discharge of recirculating water for the purpose of discharging materials contained in the water, the further buildup of which would cause concentration in amounts exceeding limits established by best engineering practices.

(k) The term *average concentration* as it relates to chlorine discharge means the average of analyses made over a single period of chlorine release which does not exceed two hours.

(l) The term *free available chlorine* means the value obtained using any of the "chlorine—free available" methods in Table IB in 40 CFR 136.3(a) where the method has the capability of measuring free available chlorine, or other methods approved by the permitting authority.

(m) The term *coal pile runoff* means the rainfall runoff from or through any coal storage pile.

(n) The term flue gas desulfurization (FGD) wastewater means any wastewater generated specifically from the wet flue gas desulfurization scrubber system that comes into contact with the flue gas or the FGD solids, including but not limited to, the blowdown from the FGD scrubber system, overflow or underflow from the solids separation process, FGD solids wash water, and the filtrate from the solids dewatering process. Wastewater generated from cleaning the FGD scrubber, cleaning FGD solids separation equipment, cleaning FGD solids dewatering equipment, or that is collected in floor drains in the FGD process area is not considered FGD wastewater.

(o) The term flue gas mercury control wastewater means any wastewater generated from an air pollution control system installed or operated for the purpose of removing mercury from flue gas. This includes fly ash collection systems when the particulate control system follows sorbent injection or other controls to remove mercury from flue gas. FGD wastewater generated at plants using oxidizing agents to remove mercury in the FGD system and not in a separate FGMC system is not included in this definition.

(p) The term transport water means any wastewater that is used to convey fly ash, bottom ash, or economizer ash from the ash collection or storage equipment, or boiler, and has direct contact with the ash. Transport water does not include low volume, short duration discharges of wastewater from minor leaks (*e.g.,* leaks from valve packing, pipe flanges, or piping) or minor maintenance events (*e.g.,* replacement of valves or pipe sections).

(q) The term gasification wastewater means any wastewater generated at an integrated gasification combined cycle operation from the gasifier or the syngas cleaning, combustion, and cooling processes. Gasification wastewater includes, but is not limited to the following: Sour/grey water; CO_2/steam stripper wastewater; sulfur recovery unit blowdown, and wastewater resulting from slag handling or fly ash handling, particulate removal, halogen removal, or trace organic removal. Air separation unit blowdown, noncontact cooling water, and runoff from fuel and/or byproduct piles are not considered gasification wastewater. Wastewater that is collected intermittently in floor drains in the gasification process area from leaks, spills, and cleaning occurring during normal operation of the gasification operation is not considered gasification wastewater.

(r) The term combustion residual leachate means leachate from landfills or surface impoundments containing combustion residuals. Leachate is composed of liquid, including any suspended or dissolved constituents in the liquid, that has percolated through waste or other materials emplaced in a landfill, or that passes through the surface impoundment's containment structure (*e.g.,* bottom, dikes, berms). Combustion residual leachate includes seepage and/or leakage from a combustion residual landfill or impoundment unit. Combustion residual leachate includes wastewater from landfills and surface impoundments located on non-adjoining property when under the operational control of the permitted facility.

(s) The term oil-fired unit means a generating unit that uses oil as the primary or secondary fuel source and does not use a gasification process or any coal or petroleum coke as a fuel source. This definition does not include units that use oil only for start up or flame-stabilization purposes.

(t) The phrase "as soon as possible" means November 1, 2018, unless the permitting authority establishes a later date, after receiving information from the discharger, which reflects a consideration of the following factors:

(1) Time to expeditiously plan (including to raise capital), design, procure, and install equipment to comply with the requirements of this part.

(2) Changes being made or planned at the plant in response to:

(i) New source performance standards for greenhouse gases from new fossil fuel-fired electric generating units, under sections 111, 301, 302, and 307(d)(1)(C) of the Clean Air Act, as amended, 42 U.S.C. 7411, 7601, 7602, 7607(d)(1)(C);

(ii) Emission guidelines for greenhouse gases from existing fossil fuel-fired electric generating units, under sections 111, 301, 302, and 307(d) of the Clean Air Act, as amended, 42 U.S.C. 7411, 7601, 7602, 7607(d); or

(iii) Regulations that address the disposal of coal combustion residuals as solid waste, under sections 1006(b), 1008(a), 2002(a), 3001, 4004, and 4005(a) of the Solid Waste Disposal Act of 1970, as amended by the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. 6906(b), 6907(a), 6912(a), 6944, and 6945(a).

(3) For FGD wastewater requirements only, an initial commissioning period for the treatment system to optimize the installed equipment.

(4) Other factors as appropriate.

§423.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, utilization of facilities, raw materials, manufacturing processes, non-water quality environmental impacts, control and treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES Permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The phrase "other such factors" appearing above may include significant cost differentials. In no event may a discharger's impact on receiving water quality be considered as a factor under this paragraph.

(b) Any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction by the application of the best practicable control technology currently available (BPT):

(1) The pH of all discharges, except once through cooling water, shall be within the range of 6.0-9.0.

(2) There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

(3) The quantity of pollutants discharged from low volume waste sources shall not exceed the quantity determined by multiplying the flow of low volume waste sources times the concentration lised in the following table:

Pollutant or pollutant property	BPT effluent limitations	
	Maximum for any 1 day (mg/l)	Average of daily values for 30 consecutive days shall not exceed (mg/l)
TSS	100.0	30.0
Oil and grease	20.0	15.0

(4) The quantity of pollutants discharged in fly ash and bottom ash transport water shall not exceed the quantity determined by multiplying the flow of fly ash and bottom ash transport water times the concentration listed in the following table:

Pollutant or pollutant property	BPT effluent limitations	
	Maximum for any 1 day (mg/l)	Average of daily values for 30 consecutive days shall not exceed (mg/l)
TSS	100.0	30.0
Oil and grease	20.0	15.0

(5) The quantity of pollutants discharged in metal cleaning wastes shall not exceed the quantity determined by multiplying the flow of metal cleaning wastes times the concentration listed in the following table:

Pollutant or pollutant property	BPT effluent limitations	
	Maximum for any 1 day (mg/l)	Average of daily values for 30 consecutive days shall not exceed (mg/l)
TSS	100.0	30.0
Oil and grease	20.0	15.0
Copper, total	1.0	1.0
Iron, total	1.0	1.0

(6) The quantity of pollutants discharged in once through cooling water shall not exceed the quantity determined by multiplying the flow of once through cooling water sources times the concentration listed in the following table:

Pollutant or pollutant property	BPT effluent limitations	
	Maximum concentration (mg/l)	Average concentration (mg/l)
Free available chlorine	0.5	0.2

(7) The quantity of pollutants discharged in cooling tower blowdown shall not exceed the quantity determined by multiplying the flow of cooling tower blowdown sources times the concentration listed in the following table:

Pollutant or pollutant property	BPT effluent limitations	
	Maximum concentration (mg/l)	Average concentration (mg/l)
Free available chlorine	0.5	0.2

(8) Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available or total residual chlorine at any one time unless the utility can demonstrate to the Regional Administrator or State, if the State has NPDES permit issuing authority, that the units in a particular location cannot operate at or below this level or chlorination.

(9) Subject to the provisions of paragraph (b)(10) of this section, the following effluent limitations shall apply to the point source discharges of coal pile runoff:

Pollutant or pollutant property	BPT effluent limitations
	Maximum concentration for any time (mg/l)
TSS	50

(10) Any untreated overflow from facilities designed, constructed, and operated to treat the volume of coal pile runoff which is associated with a 10 year, 24 hour rainfall event shall not be subject to the limitations in paragraph (b)(9) of this section.

(11) The quantity of pollutants discharged in FGD wastewater, flue gas mercury control wastewater, combustion residual leachate, or gasification wastewater shall not exceed the quantity determined by multiplying the flow of the applicable wastewater times the concentration listed in the following table:

Pollutant or pollutant property	BPT Effluent limitations	
	Maximum for any 1 day (mg/l)	Average of daily values for 30 consecutive days shall not exceed (mg/l)
TSS	100.0	30.0
Oil and grease	20.0	15.0

(12) At the permitting authority's discretion, the quantity of pollutant allowed to be discharged may be expressed as a concentration limitation instead of the mass-based limitations specified in paragraphs (b)(3) through (b)(7), and (b)(11), of this section. Concentration limitations shall be those concentrations specified in this section.

(13) In the event that wastestreams from various sources are combined for treatment or discharge, the quantity of each pollutant or pollutant property controlled in paragraphs (b)(1) through (b)(12) of this section attributable to each controlled waste source shall not exceed the specified limitations for that waste source.

§423.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this part must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

(a) There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

(b)(1) For any plant with a total rated electric generating capacity of 25 or more megawatts, the quantity of pollutants discharged in once through cooling water from each discharge point shall not exceed the quantity determined by multiplying the flow of once through cooling water from each discharge point times the concentration listed in the following table:

Pollutant or pollutant property	BAT Effluent Limitations Maximum concentration (mg/l)
Total residual chlorine	0.20

(2) Total residual chlorine may not be discharged from any single generating unit for more than two hours per day unless the discharger demonstrates to the permitting authority that discharge for more than two hours is required for macroinvertebrate control. Simultaneous multi-unit chlorination is permitted.

(c)(1) For any plant with a total rated generating capacity of less than 25 megawatts, the quantity of pollutants discharged in once through cooling water shall not exceed the quantity determined by multiplying the flow of once through cooling water sources times the concentration listed in the following table:

Pollutant or pollutant property	BAT effluent limitations	
	Maximum concentration (mg/l)	Average concentration (mg/l)
Free available chlorine	0.5	0.2

(2) Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available or total residual chlorine at any one time unless the utility can demonstrate to the Regional Administrator or State, if the State has NPDES permit issuing authority, that the units in a particular location cannot operate at or below this level of chlorination.

(d)(1) The quantity of pollutants discharged in cooling tower blowdown shall not exceed the quantity determined by multiplying the flow of cooling tower blowdown times the concentration listed below:

Pollutant or pollutant property	BAT effluent limitations	
	Maximum concentration (mg/l)	**Average concentration (mg/l)**
Free available chlorine	0.5	0.2
Pollutant or pollutant property	**Maximum for any 1 day –(mg/l)**	**Average of daily values for 30 consecutive days shall not exceed = (mg/l)**
The 126 priority pollutants (Appendix A) contained in chemicals added for cooling tower maintenance, except:	([1])	([1])
Chromium, total	0.2	0.2
Zinc, total	1.0	1.0

[1]No detectable amount.

(2) Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available or total residual chlorine at any one time unless the utility can demonstrate to the Regional Administrator or State, if the State has NPDES permit issuing authority, that the units in a particular location cannot operate at or below this level of chlorination.

(3) At the permitting authority's discretion, instead of the monitoring specified in 40 CFR 122.11(b) compliance with the limitations for the 126 priority pollutants in paragraph (d)(1) of this section may be determined by engineering calculations which demonstrate that the regulated pollutants are not detectable in the final discharge by the analytical methods in 40 CFR part 136.

(e) The quantity of pollutants discharged in chemical metal cleaning wastes shall not exceed the quantity determined by multiplying the flow of chemical metal cleaning wastes times the concentration listed in the following table:

Pollutant or pollutant property	BAT effluent limitations	
	Maximum for any 1 day (mg/l)	**Average of daily values for 30 consecutive days shall not exceed –(mg/l)**
Copper, total	1.0	1.0

Iron, total	1.0	1.0

(f) [Reserved—Nonchemical Metal Cleaning Wastes].

(g)(1)(i) *FGD wastewater.* Except for those discharges to which paragraph (g)(2) or (g)(3) of this section applies, the quantity of pollutants in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the concentration listed in the table following this paragraph (g)(1)(i). Dischargers must meet the effluent limitations for FGD wastewater in this paragraph by a date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023. These effluent limitations apply to the discharge of FGD wastewater generated on and after the date determined by the permitting authority for meeting the effluent limitations, as specified in this paragraph.

	BAT Effluent limitations	
Pollutant or pollutant property	**Maximum for any 1 day**	**Average of daily values for 30 consecutive days shall not exceed**
Arsenic, total (ug/L)	11	8
Mercury, total (ng/L)	788	356
Selenium, total (ug/L)	23	12
Nitrate/nitrite as N (mg/L)	17.0	4.4

(ii) For FGD wastewater generated before the date determined by the permitting authority, as specified in paragraph (g)(1)(i), the quantity of pollutants discharged in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the concentration listed for TSS in §423.12(b)(11).

(2) For any electric generating unit with a total nameplate capacity of less than or equal to 50 megawatts or that is an oil-fired unit, the quantity of pollutants discharged in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the concentration listed for TSS in §423.12(b)(11).

(3)(i) For dischargers who voluntarily choose to meet the effluent limitations for FGD wastewater in this paragraph, the quantity of pollutants in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the concentration listed in the table following this paragraph (g)(3)(i). Dischargers who choose to meet the effluent limitations for FGD wastewater in this paragraph must meet such limitations by December 31, 2023. These effluent limitations apply to the discharge of FGD wastewater generated on and after December 31, 2023.

Pollutant or pollutant property	BAT Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
Arsenic, total (ug/L)	4	
Mercury, total (ng/L)	39	24
Selenium, total (ug/L)	5	
TDS (mg/L)	50	24

(ii) For discharges of FGD wastewater generated before December 31, 2023, the quantity of pollutants discharged in FGD wastewater shall not exceed the quantity determined by multiplying the flow of FGD wastewater times the concentration listed for TSS in §423.12(b)(11).

(h)(1)(i) *Fly ash transport water.* Except for those discharges to which paragraph (h)(2) of this section applies, or when the fly ash transport water is used in the FGD scrubber, there shall be no discharge of pollutants in fly ash transport water. Dischargers must meet the discharge limitation in this paragraph by a date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023. This limitation applies to the discharge of fly ash transport water generated on and after the date determined by the permitting authority for meeting the discharge limitation, as specified in this paragraph. Whenever fly ash transport water is used in any other plant process or is sent to a treatment system at the plant (except when it is used in the FGD scrubber), the resulting effluent must comply with the discharge limitation in this paragraph. When the fly ash transport water is used in the FGD scrubber, the quantity of pollutants in fly ash transport water shall not exceed the quantity determined by multiplying the flow of fly ash transport water times the concentration listed in the table in paragraph (g)(1)(i) of this section.

(ii) For discharges of fly ash transport water generated before the date determined by the permitting authority, as specified in paragraph (h)(1)(i) of this section, the quantity of pollutants discharged in fly ash transport water shall not exceed the quantity determined by multiplying the flow of fly ash transport water times the concentration listed for TSS in §423.12(b)(4).

(2) For any electric generating unit with a total nameplate generating capacity of less than or equal to 50 megawatts or that is an oil-fired unit, the quantity of pollutants discharged in fly ash transport water shall not exceed the quantity determined by multiplying the flow of fly ash

transport water times the concentration listed for TSS in §423.12(b)(4).

(i)(1)(i) *Flue gas mercury control wastewater.* Except for those discharges to which paragraph (i)(2) of this section applies, there shall be no discharge of pollutants in flue gas mercury control wastewater. Dischargers must meet the discharge limitation in this paragraph by a date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023. This limitation applies to the discharge of flue gas mercury control wastewater generated on and after the date determined by the permitting authority for meeting the discharge limitation, as specified in this paragraph. Whenever flue gas mercury control wastewater is used in any other plant process or is sent to a treatment system at the plant, the resulting effluent must comply with the discharge limitation in this paragraph.

(ii) For discharges of flue gas mercury control wastewater generated before the date determined by the permitting authority, as specified in paragraph (i)(1)(i) of this section, the quantity of pollutants discharged in flue gas mercury control wastewater shall not exceed the quantity determined by multiplying the flow of flue gas mercury control wastewater times the concentration for TSS listed in §423.12(b)(11).

(2) For any electric generating unit with a total nameplate generating capacity of less than or equal to 50 megawatts or that is an oil-fired unit, the quantity of pollutants discharged in flue gas mercury control wastewater shall not exceed the quantity determined by multiplying the flow of flue gas mercury control wastewater times the concentration for TSS listed in §423.12(b)(11).

(j)(1)(i) *Gasification wastewater.* Except for those discharges to which paragraph (j)(2) of this section applies, the quantity of pollutants in gasification wastewater shall not exceed the quantity determined by multiplying the flow of gasification wastewater times the concentration listed in the table following this paragraph (j)(1)(i). Dischargers must meet the effluent limitations in this paragraph by a date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023. These effluent limitations apply to the discharge of gasification wastewater generated on and after the date determined by the permitting authority for meeting the effluent limitations, as specified in this paragraph.

	BAT Effluent limitations	
Pollutant or pollutant property	**Maximum for any 1 day**	**Average of daily values for 30 consecutive days shall not exceed**
Arsenic, total (ug/L)	4	
Mercury, total (ng/L)	1.8	1.3
Selenium, total (ug/L)	453	227
Total dissolved solids (mg/L)	38	22

(ii) For discharges of gasification wastewater generated before the date determined by the permitting authority, as specified in paragraph (j)(1)(i) of this section, the quantity of pollutants discharged in gasification wastewater shall not exceed the quantity determined by multiplying the

flow of gasification wastewater times the concentration for TSS listed in §423.12(b)(11).

(2) For any electric generating unit with a total nameplate generating capacity of less than or equal to 50 megawatts or that is an oil-fired unit, the quantity of pollutants discharged in gasification wastewater shall not exceed the quantity determined by multiplying the flow of gasification wastewater times the concentration listed for TSS in §423.12(b)(11).

(k)(1)(i) *Bottom ash transport water.* Except for those discharges to which paragraph (k)(2) of this section applies, or when the bottom ash transport water is used in the FGD scrubber, there shall be no discharge of pollutants in bottom ash transport water. Dischargers must meet the discharge limitation in this paragraph by a date determined by the permitting authority that is as soon as possible beginning November 1, 2018, but no later than December 31, 2023. This limitation applies to the discharge of bottom ash transport water generated on and after the date determined by the permitting authority for meeting the discharge limitation, as specified in this paragraph. Whenever bottom ash transport water is used in any other plant process or is sent to a treatment system at the plant (except when it is used in the FGD scrubber), the resulting effluent must comply with the discharge limitation in this paragraph. When the bottom ash transport water is used in the FGD scrubber, the quantity of pollutants in bottom ash transport water shall not exceed the quantity determined by multiplying the flow of bottom ash transport water times the concentration listed in the table in paragraph (g)(1)(i) of this section.

(ii) For discharges of bottom ash transport water generated before the date determined by the permitting authority, as specified in paragraph (k)(1)(i) of this section, the quantity of pollutants discharged in bottom ash transport water shall not exceed the quantity determined by multiplying the flow of bottom ash transport water times the concentration for TSS listed in §423.12(b)(4).

(2) For any electric generating unit with a total nameplate generating capacity of less than or equal to 50 megawatts or that is an oil-fired unit, the quantity of pollutants discharged in bottom ash transport water shall not exceed the quantity determined by multiplying the flow of the applicable wastewater times the concentration for TSS listed in §423.12(b)(4).

(l) *Combustion residual leachate.* The quantity of pollutants discharged in combustion residual leachate shall not exceed the quantity determined by multiplying the flow of combustion residual leachate times the concentration for TSS listed in §423.12(b)(11).

(m) At the permitting authority's discretion, the quantity of pollutant allowed to be discharged may be expressed as a concentration limitation instead of any mass based limitations specified in paragraphs (b) through (l) of this section. Concentration limitations shall be those concentrations specified in this section.

(n) In the event that wastestreams from various sources are combined for treatment or discharge, the quantity of each pollutant or pollutant property controlled in paragraphs (a) through (m) of this section attributable to each controlled waste source shall not exceed the specified limitation for that waste source.

(The information collection requirements contained in paragraphs (c)(2) and (d)(2) were approved by the Office of Management and Budget under control number 2040-0040. The information collection requirements contained in paragraph (d)(3) were approved under control number 2040-

0033)

Appendix B – Water Quality Waste Load Allocation

Appendix C – Process Flow Line Diagram

Appendix D – Reasonable Potential Analysis (RPA) Calculation for Metals Spreadsheet

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PUBLIC NOTICE
GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

PUBLIC NOTICE NO. 2017–04 ML **FEBRUARY 15, 2017**

PUBLIC NOTICE

Notice of Application for National Pollutant Discharge Elimination System Permit to Discharge Treated Wastewater Into Waters of the State of Georgia.

The Georgia Environmental Protection Division has received a new NPDES permit application for the reissuance of an existing NPDES permit. Having reviewed such application, the Environmental Protection Division proposes to issue for a maximum term of five years the following permit subject to specific pollutant limitations and special conditions:

Georgia Power Company, 241 Ralph McGill Boulevard NE, Atlanta, Georgia 30308, NPDES Permit No. GA0001457, for its steam electric power generating facility located at 5963 Alabama Highway, S.W. in the City of Rome, Floyd County, Georgia. Approximately 668.32 MGD of steam electric power generating wastewater (once through cooling water, low volume wastewater, coal pile and coal ash pond wastewater, flue gas desulfurization wastewater, and stormwater), is discharged to the Coosa River (external outfall nos. 01, 03, 04, and 05) and Smith Cabin Creek (external outfall no. 10) in the Coosa River Basin.

Persons wishing to comment upon or object to the proposed determinations are invited to submit same in writing to the EPD address below, or via e-mail at EPDcomments@dnr.ga.gov, no later than thirty (30) days after this notification. If you choose to e-mail your comments, please be sure to include the words "NPDES permit reissuance – Georgia Power Company – Plant Hammond (Floyd County)" in the subject line to ensure that your comments will be forwarded to the correct staff. All comments received prior to or on that date will be considered in the formulation of final determinations regarding the application. A public hearing may be held where the EPD Director finds a significant degree of public interest in a proposed permit or group of permits. Additional information regarding public hearing procedures is available by writing the Environmental Protection Division.

A fact sheet or copy of the draft permit is available by writing the Environmental Protection Division. A copying charge of 10 cents per page will be assessed. The permit application, draft permit, comments received, and other information are available for review at 2 MLK, Jr. Dr., Suite 1152E, Atlanta, GA 30334, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday. For additional information contact: Audra Dickson, Wastewater Regulatory Program, phone (404) 463-4934 or e-mail audra.dickson@dnr.ga.gov.

PUBLIC NOTICE
GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

PUBLIC NOTICE NO. 2017–04 ML **FEBRUARY 15, 2017**

Public Hearing Information:

EPD will hold a public hearing at 7:00 p.m. on April 12, 2017. The hearing will be held at the E.C.O. Center located at 393 Riverside Parkway, Rome, Georgia 30161. The purpose of the public hearing is to receive comments on the draft NPDES permit for Georgia Power Company – Plant Hammond.

The public hearing is a formal process to receive comments on the draft permit. Participants who wish to comment for the record are requested to sign in upon arrival. Hearing participants will not be subject to questions from the audience, but may be questioned by the Hearing Officer for clarification of technical points or to develop a better understanding of statements. Questions asked by participants making statements will be answered by EPD in writing at a later date. Lengthy statements or statements of a considerable technical or economic nature should be submitted in writing for the official record. During the hearing, oral statements shall be limited to three (3) minutes to allow everyone an opportunity to be heard. Comments should be confined to water quality issues as they relate to the draft permit.

Written comments are welcomed. To ensure their consideration, written comments should be received by close of business on April 14, 2017. Please address written comments to the address listed below, or via e-mail at EPDcomments@dnr.state.ga.us. If you choose to e-mail your comments, please be sure to include the words "NPDES Permit Issuance – Georgia Power Company – Plant Hammond" in the subject line to ensure that your comments will be forwarded to the correct staff. The permit application, draft permit, comments received, and other information are available for review at 2 MLK Jr. Drive, Suite 1152E, Atlanta, GA 30334, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday. Please bring this notice to the attention of interested persons.

PUBLIC NOTICE
GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

PUBLIC NOTICE NO. 2017–04 ML **FEBRUARY 15, 2017**

Persons wishing to comment upon or object to the proposed determinations are invited to submit same in writing to the EPD address below or via e-mail at EPDcomments @dnr.ga.gov, no later than March 17, 2017. Please use the words "Public Notice No. 2017-04 ML" and the name of the subject facility that you are commenting on in the subject line to ensure that your comments will be forwarded to the correct staff. All comments received prior to or on that date will be considered in the formulation of final determinations regarding the application. In the case of the permits which are on this notice for proposed modification, only those conditions subject to modification are open to public comment.

A fact sheet or copy of draft permits is available by writing the Environmental Protection Division. The permit application, draft permit, comments received, and other information are available for review at 2 MLK Jr. Dr. S.W., 1152 East Tower Atlanta, Georgia 30334. For additional information contact: Jeff Larson, Wastewater Regulatory Program, phone (404) 463-1511. Please bring this notice to the attention of interested persons.

PUBLIC NOTICE
GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

PUBLIC NOTICE NO. 2017–04 ML **FEBRUARY 15, 2017**

NPDES PERMIT RESCISSION

JEFERSON COUNTY
KaMin LLC, 2069 Howard Mill Rd, Wrens, Georgia 30833, NPDES Permit No. GA0048101, for its Kaolin mining facility located in Wrens, Jefferson County, Georgia. The KaMin – Wrens Calcine facility has ceased discharging at this location. NPDES Permit No. GA0048101 is no longer necessary.

II. LAND APPLICATION SYSTEM PERMIT REISSUANCE

Land Application System (LAS) permits are valid for a maximum of five years. Prior to expiration of an existing permit, a new application must be submitted and evaluated.

All municipalities must be in compliance with the Georgia Department of Community Affairs (DCA) Service Delivery Strategy in order to receive a permit.

LAS PERMIT REISSUANCE

BARROW COUNTY
Barrow County School System, 645 Jefferson Highway, Winder, Georgia, 30680, LAS Permit No. GAJ030942, for its Bethlehem Elementary School Land Application System, located at 47 McElhannon Road, Bethlehem, Georgia, 30620. Up to 0.015 MGD of treated wastewater is being land applied to a site in Barrow County in the Oconee River Basin."

BROOKS COUNTY
Brookside Choice Properties, 470 Fellowship Home Lane, Valdosta, Georgia, 31602 LAS Permit No. GAJ030963, for its Land Application System located at 470 Fellowship Home Lane, Valdosta, Georgia, 31602. Up to 0.015 MGD of treated wastewater is being land applied to a site in Brooks County in the Suwannee River Basin.

BRYAN COUNTY
South Atlantic Utilities, Inc, 621 Stephenson Avenue, Savannah, Georgia, 31405, LAS Permit No. GAJ030768, for its Waterford Landing Land Application System located at 731 Waterford Landing Road, Richmond Hill, Georgia, 31324. Up to 0.104 MGD of treated wastewater is being land applied to a site in Bryan County in the Ogeechee River Basin.

HALL COUNTY
Pilgrim's Pride Corporation, Post Office Box 1810, Gainesville, GA 30503, Permit No. GAJ010518 for a commercial waste treatment facility located at 3561 Athens Road, Talmo, Georgia in Hall County. Approximately 0.022 MGD of pretreated chicken hatchery waste will be land applied to a site in the Oconee River Basin.

HENRY COUNTY
Henry County Water Authority, 1695 Hwy 20 West, McDonough, GA 30253, LAS Permit No. GAJ020250, for its Indian Creek land application system located at 1601 Lester Mill Road, Locust Grove, Georgia 30248. Up to 1.5 MGD of treated wastewater is being land applied to a site in Henry County in the Ocmulgee River Basin.

PUBLIC NOTICE
GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

PUBLIC NOTICE NO. 2017–04 ML **FEBRUARY 15, 2017**

JEFFERSON COUNTY
KaMin, LLC, 2069 Howard Mill Road, Wrens, Georgia 30833, NPDES Permit No. GA0002542, for its Kaolin mining facility located in Wrens, Jefferson County, Georgia. Approximately 8.972 MGD of process water and stormwater is discharged to Brier Creek and Reedy Creek in the Savannah River Basin.

LAURENS COUNTY
Town of Rentz, Post Office Box 127, Rentz, Georgia 31075, NPDES Permit No. GA0037630, for the Rentz Water Pollution Control Plant located at 900 Rentz Dexter Road, Rentz, GA 31075. Up to 0.12 MGD of treated wastewater is being discharged to Bluewater Creek in the Oconee River Basin.

OCONEE COUNTY
AmeriPride Services Inc., 650 Industrial Boulevard N.E., Minneapolis, MN 55413, Permit No. GAP050278, for its groundwater remediation system located at 1131/1081 Experiment Station Road, Watkinsville, GA 30677. Pretreated groundwater remediation wastewater is discharged to the Oconee County Calls Creek Water Reclamation Facility in the Oconee River Basin.

PICKENS COUNTY
Blue Ridge Marble & Granite Co. LLC, P.O. Box 9, Nelson, Georgia 30151, NPDES Permit No. GA0000485, for its Marble/Limestone and granite facility located in Nelson, Pickens County, Georgia. Approximately 0.207 MGD of process water, stormwater runoff, and groundwater is discharged to tributary of Spence Creek in the Coosa River Basin.

TROUP COUNTY
Milliken & Company, P.O. Box 1926, M-482, Spartanburg, South Carolina 29304, NPDES Permit No. GA0024791, for its carpet tufting and fabrication of rubber mats facility located in Lagrange, Troup County, Georgia. Approximately 0.003831 MGD of process water (sanitary, utility, boiler blowdown & condensate) is discharged to Long Cane Creek in the Chattahoochee River Basin.

WALTON COUNTY
City of Loganville, Post Office Box 39, Loganville, Georgia, 30052, NPDES Permit No. GA0020788, for the Loganville Water Pollution Control Plant located at 4895 Highway 81, Loganville, Georgia 30052. Up to 1.75 MGD of treated wastewater is being discharged to Big Flat Creek in the Ocmulgee River Basin. The permit also includes expansions from 1.75 MGD to 3.33 MGD and to 5.0 MGD.

NPDES PERMIT MODIFICATION

JONES COUNTY
City of Gray, Post Office Box 443, Gray, Georgia, 31032, NPDES Permit No. GA0026085 for the water reclamation facility located at 163 Homestead Drive, Gray, Georgia 31032. The permit is being modified to allow a Class III Certified Operator to operate the facility under B.1. effluent limitations.

PUBLIC NOTICE
GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

PUBLIC NOTICE NO. 2017–04 ML **FEBRUARY 15, 2017**

I. NOTICE OF APPLICATION FOR A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TREATED WASTEWATER INTO WATERS OF THE STATE OF GEORGIA

NPDES permits are valid for a maximum of five years. Prior to expiration of an existing permit, a new application must be submitted and evaluated.

An antidegradation analysis is conducted, as applicable, for new or expanded point source discharges that are proposed. The analysis evaluates whether allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In all cases, existing instream water uses and the level of water quality necessary to protect the existing use is maintained and protected.

All municipalities must be in compliance with the Georgia Department of Community Affairs (DCA) Service Delivery Strategy in order to receive a permit.

Having reviewed such applications, the Environmental Protection Division (EPD) is considering the issuance of NPDES permits to the following applicants, subject to specific pollutant limitations and special conditions.

NPDES PERMIT REISSUANCE

BUTTS COUNTY

City of Jackson, P.O. Box 838, Jackson, Georgia, 30233, NPDES Permit No. GA0032719, for the Northeast Water Pollution Control Plant located at 719 Recreation Drive, Jackson, Georgia, 30233 (Butts County). Up to 0.14 MGD of treated wastewater is being discharged to an unnamed Tributary to Yellow Water Creek, in the Ocmulgee River Basin."

COLQUITT COUNTY

City of Norman Park, P.O. Box 197, Norman Park, Georgia 31771, NPDES Permit No. GA0033600 for its water pollution control plant (WPCP) located Serena Drive, Norman Park, Georgia 31771 (Colquitt County). Up to 0.2 MGD of treated wastewater is discharged into Reedy Creek in the Suwanee River Basin.

HALL COUNTY

City of Gainesville, 757 Queen City Parkway SW, Gainesville, Georgia 30501, NPDES Permit No. GA0020168, for the City of Gainesville – Linwood Water Pollution Control Plant located at 500 Linwood Drive, Gainesville, GA 30501. Up to 5.0 MGD of treated wastewater is being discharged to Lake Sidney Lanier in the Chattahoochee River Basin.

Hanson Aggregates Southeast, LLC, 2310 Parklake Drive, Suite 550, Atlanta, Georgia 30345, NPDES Permit No. GA0046698 for its granite quarry facility located at 2955 Candler Road (Rte. 60), Gainesville, Hall County, Georgia 30501. Approximately 2.0 MGD of pit pump out/stormwater and plant site run-off is discharged into an unnamed tributary of Allen Creek in the Oconee River Basin.

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FACT SHEET - Appendix B

Plant Hammond
NPDES Permit No. GA001457

Receiving Water: Coosa River

1) Instream Wastewater Concentration (IWC) Calculations:

Permitted flow (MGD)	Permitted flow (cfs)	Seasonal 7Q10 Streamflow (cfs)	Instream Wastewater Concentration (%)
2.2	3.3	**3.2**	51.1

$$IWC = \frac{Q_{Plant}}{Q_{Plant} + Q_{Stream}} \times 100 \quad \%$$

2) Total Residual Chlorine (TRC) Calculations:

Permitted flow (MGD)	Permitted flow (cfs)	Seasonal 7Q10 Streamflow (cfs)	Instream target TRC concentration (mg/L)	Calculated effluent TRC limit (mg/L)
264.1	408.7	**1162.0**	0.011	0.04

$$[TRC]_{Effluent} = \frac{(Q_{Plant} + Q_{Stream}) \times [TRC]_{Stream}}{Q_{Plant}}$$

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Shell, Karrie-Jo

From: Ruff, Susan <susan.ruff@dnr.ga.gov>
Sent: Friday, February 17, 2017 7:18 AM
To: R4NPDESPermits; Davis, Molly
Cc: Dickson, Audra
Subject: DRAFT Permit No. GA0001457 - Georgia Power (Plant Hammond) - EPA 6 of 12 SIC (4911)
Attachments: Plant Hammond Application Page 1 of 4.pdf; Plant Hammond Application Page 2 of 4.pdf; Plant Hammond Application Page 3 of 4.pdf; Plant Hammond Application Page 4 of 4.pdf; Plant Hammond EL Guidelines Rule Applicability Timing NPDES Permit Application 2016.pdf; Revised Form 2C App Page 1 of 2.pdf; Revised Form 2C App Page 2 of 2.pdf; Revised Outfall 05 - 2016 Form 2CV Ham Outfall 05 Resubmittal.doc; REVISED UPDATED FORM 2C WITH FLOW DATA FOR OUTFALLS 03 04 10.pdf

Importance: High

Categories: SIC 4911 Electrical Services

Good Afternoon,

Your are receiving this **DRAFT NPDES Permit No. GA0001457** in 12 emails due to its size.

Part 6 of 12

Susan Ruff
Administrative Assistant 2

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION
GA EPD Watershed Protection Branch
2 Martin Luther King, Jr. Drive, Suite 1152 East
Atlanta, Georgia 30334
Email: susan.ruff@dnr.ga.gov
Phone: 404-463-1507
http://epd.georgia.gov
http://epd.georgia.gov/watershed-protection-branch

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Georgia Department of Natural Resources
Environmental Protection Division
Mountain District Office, 16 Center Road, Cartersville, Georgia 30121
Richard E. Dunn, Director
PHONE: (770) 387-4900
FAX: (770) 387-4906

Remit Correspondence To:
Post Office Box 3250
Cartersville, Georgia 30120

#26

MEMORANDUM

TO: Stacey Wix
FROM: Cindy Nix
DATE: July 14, 2016
SUBJECT: WQ Inspection Report: **Georgia Power - Plant Hammond**
Coosa, GA (Floyd County)
NPDES Permit No. GA0001457
Last WQ Inspection: Wednesday, June 24, 2015
WQ Inspection Date: Tuesday, July 12, 2016

Compliance

X The plant was in compliance with Georgia's *Rules for Water Quality Control* and the permit referenced above.
__ The plant was **not** in compliance with Georgia's *Rules for Water Quality Control* and the permit referenced above.

Follow-up Action

__ No action was taken; specify reasons.
__ Letter of Noncompliance (NCD) has been sent to the company. {Attach NCD.}
__ Notice of Violation (NOV) has been sent to the company. {Attach NOV.}
__ Consent Order (CO) has been sent to the company. {Attach CO.}

FACILITY ADDRESS:

Mailing Address:
Georgia Power Company
Bin 10221, 241 Ralph McGill Blvd., NE
Atlanta, GA 30308-3374

Location:
Georgia Power Company - Plant Hammond
5963 Alabama Highway SW
Coosa, GA 30129

FACILITY CONTACTS:

On-Site Contact
Name: Charles Morin, Compliance Team Leader
Phone No.: (706) 290-6453

Corporate Contact
Name: Dominic Weatherill
Phone No.: (404) 506-3348

Escort during the inspection: Randy Holdbrooks, Sr. Compliance Specialist

Signatory Official for DMRs: Cassandra Wheeler, Plant Manager

PERMIT INFORMATION:

This facility is permitted under NPDES Permit No GA0001457 issued on November 09, 2007 and expiring on June 30, 2012 (extended).

PROCESS DESCRIPTION:

Georgia Power - Plant Hammond is a facility that generates 800 MW of electricity through combustion of fossil fuels, such as coal. There are four ash ponds and a mixing pond.

Ash Pond 2 takes in ash transport water, coal pile runoff water, flue gas desulfurization (scrubber) water, and runoff from Ash Pond 4. The Emergency Overflow (Outfall 03) was not discharging during the inspection.

Ash Pond 1 takes in effluent from ash pond 2, low volume wastes, coal pile runoff and overflow, ash transport water, gypsum and limestone handling area runoff, and chemical cleaning basin discharge. This pond water is used as makeup ash transport water. The effluent from this pond is discharged to the Mixing Pond, which is the discharge point to the river. A sign is posted at this location.

Ash Pond 4 (Dry Ash Stacking) is in the closure process. Ash from the pond is hauled to the Georgia Power Company Huffacre landfill located at 2181 Huffaker Rd NW, Rome, GA 30165.

Ash Pond 3 has been inactive for some time. There are many mature trees in this area.

Georgia Power intends to close all ash ponds within a 3-year time period.

WATER QUALITY REGULATORY REQUIREMENTS:

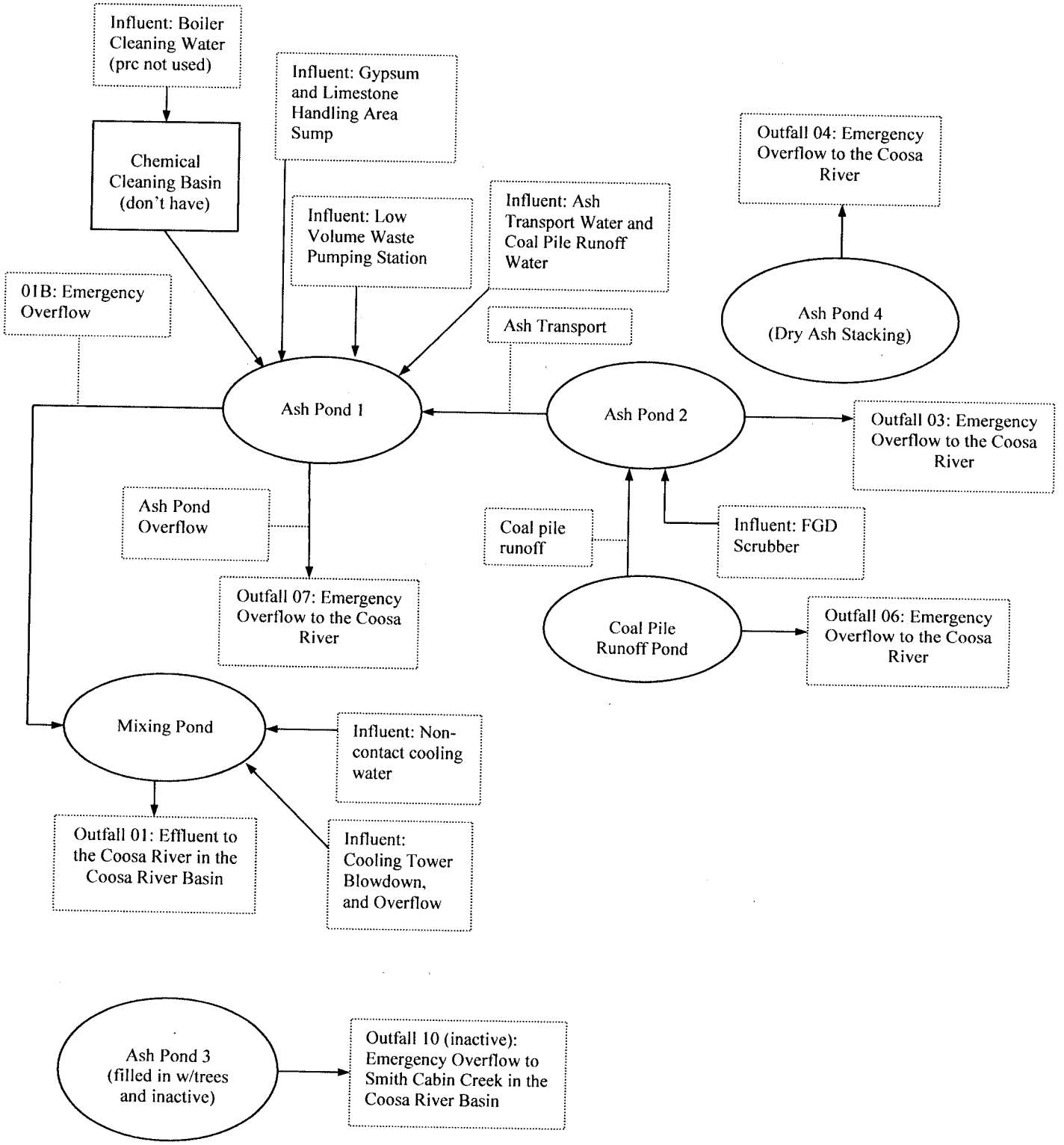
Condition No. C.2. under Part I of the NPDES Permit No. GA0001457 is a requirement to submit reports on a quarterly basis. Each of these reports are to be submitted no later than the 21st day following the reporting month. Conditions under Part I include the limits and monitoring schedule for the pollutants in the effluent for each outfall. All DMR reports have been submitted in a timely manner and all signs are posted at the outfalls.

All analyses of permitted parameters are conducted by the facility located in Smyrna, Georgia. Flow is calculated.

INSPECTION SUMMARY:

Randy Holbrooks, Sr. Compliance Specialist, escorted me during the inspection. During the inspection the Ash Pond 1 was overflowing (Outfall 01B) to the Mixing Pond. Ash Pond 2 was low volume with no overflow and is associated with Outfall 003 – Ash Pond 2 Emergency Overflow. Monitoring well samples were being collected in the vicinity of Ash Pond No. 1 during the inspection. According Burns Wetherington these monitoring well results are sent to the Hazardous Waste Office located in the Sloppy Floyd building if there is an exceedance. The Mixing Pond associated with Outfall 001 – Final Discharge was discharging to the Coosa River.

Flow Diagram(s):



Walk-Through:

Records and Reports

1. Are records and reports maintained as required by the permit? Yes X No __ N/A __

   a. Are adequate records maintained of:

      i. Sampling date, time, exact location? Yes X No __ N/A __

      ii. Analyses dates, times? Yes X No __ N/A __

      iii. Individual performing analysis? Yes X No __ N/A __

      iv. Analytical methods/techniques used? Yes X No __ N/A __

      v. Analytical results (e.g., consistent with self-monitoring report data)? Yes X No __ N/A __

   b. Are monitoring records (e.g., flow, pH, D.O., etc.) maintained for a minimum of three years including all original strip chart recordings (e.g., continuous monitoring instrumentation, calibration and maintenance records)? Yes X No __ N/A __

   c. Are lab equipment calibration and maintenance records kept? Yes X No __ N/A __

   d. Are facility operating records kept including operating logs for each treatment unit? Yes X No __ N/A __

   e. Are quality assurance records kept? Yes X No __ N/A __

   f. Are records maintained of major contributing industries (and their compliance status) using publicly owned treatment works? Yes __ No __ N/A X

Permit Verification

2. Did inspection observations verify the permit? Yes X No __ N/A __

   a. Is the correct name and mailing address of permittee in the permit? Yes X No __ N/A __

   b. Is the facility the same as described in the permit? Yes X No __ N/A __

   c. Do the principal product(s) and production rates conform with those set forth in the permit application? Yes X No __ N/A __

   d. Are the treatment processes the same as described in the permit application? Yes X No __ N/A __

   e. Is notification given to EPA/State of new, different or increased discharges? Yes __ No __ N/A X

   f. Are accurate records of raw water volume maintained? Yes X No __ N/A __

   g. Is the number and location of discharge points the same as described in the permit? Yes X No __ N/A __

   h. Is the correct name and location of receiving waters in the permit? Yes X No __ N/A __

i. Are all discharges permitted? Yes X No __ N/A __

Operation and Maintenance

3. Is the treatment facility properly operated and maintained? Yes X No __ N/A __

a. Is standby power or other equivalent provisions provided? Generators Yes X No __ N/A __

b. Is an adequate alarm system for power or equipment failures available? Yes X No __ N/A __

c. Are reports on an alternate source of power sent to EPA/State as required by the permit? Yes X No __ N/A __

d. Are sludges and solids adequately disposed? Yes X No __ N/A __

e. Are all treatment units in service? Yes X No __ N/A __

f. Is a consulting engineer retained or available for consultation on operation and maintenance problems? Yes X No __ N/A __

g. Is a qualified operating staff provided? Yes X No __ N/A __

h. Are there established procedures available for training new operators? Yes X No __ N/A __

i. Are files maintained on spare parts inventory, major equipment specification, and parts and equipment suppliers? Yes X No __ N/A __

j. Are instructions for operation and maintenance of each item of major equipment kept in a file? Yes X No __ N/A __

k. Is an operation and maintenance manual maintained? Yes X No __ N/A __

l. Is a Storm Water Pollution Prevention Plan (SWPP Plan) available? Yes __ No __ N/A X

m. Is the regulatory agency notified of any by-passing (include dates)? Yes __ No __ N/A X

n. Has any by-passing occurred since the last inspection? Yes __ No X N/A __

o. Has there been any hydraulic and/or organic overloads experienced? Yes __ No X N/A __

Compliance Schedules

4. Is the Permittee under a compliance schedule? Yes __ No X N/A __

a. Has the Permittee obtained the necessary approvals from the appropriate authorities to begin construction? Yes __ No __ N/A X

b. Has proper arrangement been made for financing (mortgage commitments, grants, etc.)? Yes __ No __ N/A X

c. Have contracts for engineering services been executed? Yes __ No __ N/A X

d. Have design plans and specifications been completed? Yes __ No __ N/A X

f. Has construction commenced? Yes __ No __ N/A X

g. Is construction and/or equipment acquisition on schedule? Yes __ No __ N/A X

h. Has construction been completed? Yes __ No __ N/A X

i. Has start-up commenced? Yes __ No __ N/A X

j. Has the Permittee requested an extension in time? Yes __ No __ N/A X

Self-Monitoring Program - Flow

5. Does the Permittee's flow measurement meet the requirements and intent of the permit? Yes __ No __ N/A X

a. Is the primary measuring device properly installed? Type of Device (weir, parshall flume, magmeter, venturi meter, or other): Yes __ No __ N/A X

b. Is the calibration frequency adequate (include date of last calibration)? Yes __ No __ N/A X

c. Is the primary flow measuring device properly operated and maintained? Yes __ No __ N/A X

d. Are secondary instruments (totalizers, recorders, etc.) properly operated and maintained? Yes __ No __ N/A X

e. Is flow measurement equipment adequate to handle expected ranges of flow rates? Yes __ No __ N/A X

Self-Monitoring Program - Sampling

6. Does the Permittee's sampling procedures meet the requirements and intent of the permit? Yes X No __ N/A __

a. Are the sampling location(s) adequate for representative sample(s)? Yes X No __ N/A __

b. Does the parameters and sampling frequency agree with the permit? Yes X No __ N/A __

c. Is the Permittee using the method (i.e., grab, manual composite, automatic composite) specified in the permit to collect samples? If no, specify type and frequency. Yes X No __ N/A __

d. Are the sample collection procedures adequate? Yes X No __ N/A __

i. Are samples refrigerated during compositing? Yes X No __ N/A __

ii. Are proper preservation techniques used? Yes X No __ N/A __

iii. Are flow proportioned samples obtained where required by permit? Yes __ No __ N/A X

iv. Are sample holding times prior to analyses in conformance with 40 CFR 136.3? Yes X No __ N/A __

e. Is monitoring and analyses being performed more frequently than required by the permit? Yes __ No X N/A __

f. If monitoring and analyses is being performed more frequently than required by the permit, are the results being reported in the Permittee's self-monitoring report? Yes __ No __ N/A X

Self-Monitoring Program - Laboratory

7. Does the Permittee's laboratory procedures meet the requirements and intent of the permit? Yes X No __ N/A __

a. Are EPA approved analytical testing procedures used (40 CFR 136.3)? Yes X No __ N/A __

b. If alternate analytical procedures are used, has proper approval been obtained? Yes __ No __ N/A X

c. Are parameters other than those required by the permit analyzed? Yes __ No X N/A __

d. Is the calibration and maintenance of instruments and equipment satisfactory? Yes X No __ N/A __

e. Are quality control procedures used? Yes X No __ N/A __

f. Are duplicate samples analyzed (specify % of time)? Yes __ No __ N/A X

g. Are samples spiked (specify % of time)? Yes __ No __ N/A X

h. Is a commercial laboratory used? Yes __ No X N/A __
Georgia Power Environmental Lab located in Smyrna is used.
pH and TRC is conducted on-site.

i. Is the commercial laboratory state certified? Yes __ No __ N/A X

Effluent/Receiving Water Observations

8. Was the outfall(s) observed during the inspection? Yes X No __ N/A __

Outfall No.	Oil Sheen	Grease	Turbidity	Visible Foam	Visible Floatable Solids	Color	Other
01	None	None	None	None	None	None	---
03	no flow	no flow	no flow	no flow	no flow	no flow	---
04	no flow	no flow	no flow	no flow	no flow	no flow	---
06	no flow	no flow	no flow	no flow	no flow	no flow	---
07	no flow	no flow	no flow	no flow	no flow	no flow	---
10	inactive	inactive	inactive	inactive	inactive	inactive	---

01 - Final Plant Discharge from Mixing Pond (discharge is bubbled from underneath river).
01A - Once Through Condenser Cooling Water
01B - Ash Transport Water Blow Down was discharging to the Mixing Pond during the inspection.
02, 03, 04, 07, 010, and 01G - Ash Pond Emergency Overflows and Building Sump Emergency Bypass
05, 08, 09, 01K, and 01L - Miscellaneous Streams (including Intake Screen Backwash, Carwash Runoff, Switchyard Non-Contact Cooling Water, and Service Road Basin Emergency Overflow.

Sampling Inspection Procedures and Observations

9. Were any samples obtained during the inspection? Yes __ No X N/A __

a. If samples were taken, specify what type of sample (grab, composite, flow proportioned).

_____

_____

b. Was an automatic sampler used? Yes __ No __ N/A X

c. Were the samples split? Yes __ No __ N/A X

d. Was a chain-of-custody form completed? Yes __ No __ N/A X

e. Was the sample taken using the facility's sampling device? Yes __ No __ N/A X

f. Specify the compositing frequency and preservation.

_____

_____

g. Specify the results of the sampling.

_____

_____

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EPD/WPB/WRP

AUG 16 2016

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#27

GEORGIA POWER

A SOUTHERN COMPANY

August 12, 2016
CERTIFIED MAIL

Ms. Audra Dickson
Industrial Permitting Unit
Georgia Environmental Protection Division
2 MLK, Jr. Dr., Suite 1152
Atlanta, GA 30334

RE: Plant Hammond
NPDES Permit No. GA0001457
Application for Permit Renewal

Dear Ms. Dickson:

Georgia Power is providing an addendum to the NPDES permit application for Plant Hammond that was submitted on May 27, 2016. This addendum is in response to the verbal request we received from your office on June 22, 2016. Please find enclosed an updated EPA NPDES application form 2CV for Outfalls 03, 04, 05, and 10.

If you need additional information or have questions regarding this matter, please contact Dominic Weatherill at 404-506-3348.

Sincerely,

Burns Wetherington, P.E.
Environmental Affairs Manager

Enclosures

bc:	C.C. Wheeler	Via e-mail	without attachments
	C. Morin	"	with attachments
	E. F. Veira	"	
	D.J. Weatherill	"	
	POW 07-01-04-00	"	

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
GAD000612663

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

Georgia Power – Plant Hammond 2016 Ash Pond 2 Emergency Overflow

OUTFALL NO. 03

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS				(1) CONCEN-TRATION	(2) MASS	
a. Biochemical Oxygen Demand (BOD)	< 2.0						1	mg/l		<8.0		1
b. Chemical Oxygen Demand (COD)	< 10.0						1	mg/l		28.0		1
c. Total Organic Carbon (TOC)	< 1.0						1	mg/l		5.5		1
d. Total Suspended Solids (TSS)	43.9						1	mg/l		14		1
e. Ammonia *(as N)*	0.18						1	mg/l		0.12		1
f. Flow	VALUE Intermittent		VALUE		VALUE			gpm		VALUE		
g. Temperature *(winter)*	8.5		VALUE		VALUE		1	°C		VALUE		
h. Temperature *(summer)*	ambient		VALUE		VALUE			°C				
i. pH	6.29	6.29	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data for an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS				(1) CONCEN-TRATION	(2) MASS	
a. Bromide (24959-67-9)			1.3						1	mg/l		<1.0		1
b. Chlorine, Total Residual			< 0.1						1	mg/l		0.1		1
c. Color			< 40						1	PCU		80		1
d. Fecal Coliform			6						1	col/100 ml		390		1
e. Fluoride (16984-48-8)			0.8						1	mg/l		<0.10		1
f. Nitrate-Nitrite *(as N)*			0.23						1	mg/l		0.38		1

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	2. MARK 'X' b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
g. Nitrogen, Total Organic *(as N)*			<0.40						1	mg/l		<0.40		1
h. Oil and Grease			<5.7						1	mg/l		<5.7		1
I. Phosphorus (as P) Total (7723-14-0)			<0.2						1	mg/l		0.16		1
J. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate *(as SO_4)* (14808-79-8)			458						1	mg/l		5.4		1
l. Sulfide *(as SO_3)* (14265-45-3)			<0.2						1	mg/l		<0.2		1
m. Sulfite *(as SO_3)* (14265-45-3)			1.2						1	mg/l		0.64		1
n. Surfactants			<0.05						1	mg/l		<0.1		1
o. Aluminum, Total (7440-39-3)			1039						1	ug/l		1790		1
p. Barium, Total (7440-39-3)			89						1	ug/l		85.0		1
q. Boron, Total (7440-42-8)			6662						1	ug/l		<40		1
r. Cobalt, Total (7440-48-4)			<40						1	ug/l		<40		1
s. Iron, Total (7439-89-6)			1545						1	ug/l		3160		1
t. Magnesium, Total (7439-95-4)			30051						1	ug/l		3700		1
u. Molybdenum, Total (7439-98-7)			133						1	ug/l		<40		1
v. Manganese, Total (7439-96-5)			261						1	ug/l		262		1
w. Tin, Total (7440-31-5)			<40						1	ug/l		<40		1
x. Titanium, Total (7440-32-6)			<100						1	ug/l		<100		1

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON PAGE V-3

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612663	03

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for the pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2 4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			<5.0						1	ug/l		<5.0		1
2M. Arsenic, Total (7440-38-2)	X			9.8						1	ug/l		<5.0		1
3M. Beryllium, Total, 7440-41-7	X			<1.0						1	ug/l		<1.0		1
4M. Cadmium, Total (7440-43-9)	X			1.2						1	ug/l		<0.7		1
5M. Chromium Total (7440-47-3)	X			< 5.0						1	ug/l		<5.0		1
6M. Copper, Total (7440-50-8)	X			< 5.0						1	ug/l		<5.0		1
7M. Lead, Total (7439-92-1)	X			3.4						1	ug/l		<1.0		1
8M. Mercury, Total (7439-97-6)	X			0.0145						1	ug/l		0.0128		1
9M. Nickel, Total (7440-02-0)	X			54.5						1	ug/l		<5.0		1
10M. Selenium, Total (7782-49-2)	X			33.8						1	ug/l		<5.0		1
11M. Silver, Total (7440-22-4)	X			<5.0						1	ug/l		<5.0		1
12M. Thallium, Total (7440-28-0)	X			1.2						1	ug/l		<1.0		1
13M. Zinc, Total (7440-66-6)	X			173						1	ug/l		<10.0		1
14M. Cyanide, Total (57-12-5)	X			<20						1	ug/l		<20		1
15M. Phenols, Total	X			<50						1	ug/l		<50		1
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)				DESCRIBE RESULTS											

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1V. Acrolein (107-02-8)	X			<50						1	ug/l				
2V. Acrylonitrile (107-13-1)	X			<50						1	ug/l				
3V. Benzene (71-43-2)	X			<2.0						1	ug/l				
4V. Bis(*Chloromethyl*) Ether (542-88-1)			X	n/a						1	ug/l				
5V. Bromoform (75-25-2)	X			<10						1	ug/l				
6V. Carbon Tetrachloride(56-23-5)	X			<2.0						1	ug/l				
7V. Chlorobenzene (108-90-7)	X			<10						1	ug/l				
8V. Chlorodibromomethane (124-48-1)	X			<10						1	ug/l				
9V. Chloroethane (75-00-3)	X			<5.0						1	ug/l				
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	X			<10						1	ug/l				
11V. Chloroform (67-66-3)	X			<2.0						1	ug/l				
12V. Dichlorobromomethane (75-71-8)	X			<10						1	ug/l				
13V. Dichlorodifluoromethane (75-71-8)	X			<10						1	ug/l				
14V. 1,1-Dichloroethane (75-34-3)	X			<2.0						1	ug/l				
15V. 1,2-Dichloroethane (107-06-2)	X			<2.0						1	ug/l				
16V. 1,1-Dichloroethylene (75-35-4)	X			<2.0						1	ug/l				
17V. 1,2-Dichloropropane (78-87-5)	X			<2.0						1	ug/l				
18V. 1,3-Dichloropropylene (542-75-6)	X			<2.0						1	ug/l				
19V. Ethylbenzene (100-41-4)	X			<2.0						1	ug/l				
20V. Methyl Bromide (74-83-9)	X			<10						1	ug/l				
21V. Methyl Chloride (74-87-3)	X			<10						1	ug/l				

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON PAGE V-5

CONTINUED FROM PAGE V-4

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
GAD000612663	03

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	X			<10						1	ug/l				
23V. 1,1,2,2Tetra-chloroethane (79-34-5)	X			<2.0						1	ug/l				
24V. Tetrachloroethylene (127-18-4)	X			<2.0						1	ug/l				
25V. Toluene (108-88-3)	X			<2.0						1	ug/l				
26V. 1,2-Trans-Dichloro-ethylene (156-60-5)	X			<2.0						1	ug/l				
27V. 1,1,1-Trichloroethane (71-56-6)	X			<2.0						1	ug/l				
28V. 1,1,2-Trichloroethane (79-00-5)	X			<2.0						1	ug/l				
29V. Trichloroethylene (79-01-6)	X			<2.0						1	ug/l				
30V. Trichlorofluoro-methane (75-69-4)	X			<10						1	ug/l				
31V. Vinyl Chloride (75-01-4)	X			<10						1	ug/l				
1A. 2-Chlorophenol (95-57-8)	X			<10						1	ug/l				
2A. 2,4-Dichlorophenol (120-83-2)	X			<10						1	ug/l				
3A. 2,4-Dimethylphenol (105-67-9)	X			<10						1	ug/l				
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			<50						1	ug/l				
5A. 2,4-Dinitrophenol (51-28-5)	X			<50						1	ug/l				
6A. 2-Nitrophenol (88-75-5)	X			<50						1	ug/l				
7A. 4-Nitrophenol (100-02-7)	X			<50						1	ug/l				
8A. P-Chloro-M-Cresol (59-50-7)	X			<10						1	ug/l				
9A. Pentachlorophenol (87-86-5)	X			<20						1	ug/l				
10A. Phenol (108-95-2)	X			<10						1	ug/l				
11A. 2,4,6-Trichloro-phenol (88-06-2)	X			<10						1	ug/l				

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			<10						1	ug/l				
2B. Acenaphtylene (208-96-8)	X			<10						1	ug/l				
3B. Anthracene (120-12-7)	X			<10						1	ug/l				
4B. Benzidine (92-87-5)	X			<80						1	ug/l				
5B. Benzo *(a)* Anthracene (56-55-3)	X			<10						1	ug/l				
6B. Benzo *(a)* Pyrene (50-32-8)	X			<10						1	ug/l				
7B. 3,4-Benzo-fluoranthene (205-99-2_	X			<10						1	ug/l				
8B. Benzo *(ghi)* Perylene (191-24-2)	X			<10						1	ug/l				
9B. Benzo *(k)*Fluoranthene (207-08-9)	X			<10						1	ug/l				
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	X			<10						1	ug/l				
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)	X			<10						1	ug/l				
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X			<10						1	ug/l				
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)	X			<10						1	ug/l				
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X			<10						1	ug/l				
15B. Butyl Benzyl Phthalate (85-68-7)	X			<10						1	ug/l				
16B. 2-Chloronaphthalene (91-58-7)	X			<10						1	ug/l				
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X			<10						1	ug/l				
18B. Chrysene (218-01-9)	X			<10						1	ug/l				
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X			<10						1	ug/l				
20B. 1,2-Dichloro-benzene (95-50-1)	X			<10						1	ug/l				
21B. 1,3-Dichloro-benzene (541-73-1)	X			<10						1	ug/l				

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON PAGE V-7

CONTINUED FROM PAGE V-6

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
GAD000612663	03

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)	X			<10						1	ug/l				
23B. 3,3-Dichlorobenzidine (91-94-1)	X			<20						1	ug/l				
24B. Diethyl Phthalate (84-66-2)	X			<10						1	ug/l				
25B. Dimethyl Phthalate (131-11-3)	X			<10						1	ug/l				
26B. Di-N-Butyl Phthalate (84-74-2)	X			<10						1	ug/l				
27B. 2,4-Dinitrotoluene (121-14-2)	X			<20						1	ug/l				
28B. 2,6-Dinitrotoluene (606-20-2)	X			<20						1	ug/l				
29B. Di-N-OctylPhthalate (117-84-0)	X			<10						1	ug/l				
30B. 1,2-Diphenyl-hydrazine *(as Azobenzene)* (122-66-7)	X			<10						1	ug/l				
31B. Fluoranthene (206-44-0)	X			<10						1	ug/l				
32B. Fluorene (86-73-7)	X			<10						1	ug/l				
33B. Hexachlorobenzene (118-74-1)	X			<10						1	ug/l				
34B. Hexachlorobutadiene (87-68-3)	X			<10						1	ug/l				
35B. Hexachlorocyclo-pentadiene (77-47-4)	X			<10						1	ug/l				
36B. Hexachloroethane (67-72-1)	X			<10						1	ug/l				
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	X			<10						1	ug/l				
38B. Isophorone (78-59-1)	X			<10						1	ug/l				
39B. Naphthalene (91-20-3)	X			<10						1	ug/l				
40B. Nitrobenzene (98-95-3)	X			<10						1	ug/l				
41B. N-Nitrosodimethylamine (62-75-9)	X			<10						1	ug/l				
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X			<10						1	ug/l				

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS (continued)															
43B. N-Nitrosodiphenylamine (86-30-6_	X			<10						1	ug/l				
44B. Phenanthrene (85-01-8)	X			<10						1	ug/l				
45B. Pyrene (129-00-0)	X			<10						1	ug/l				
46B. 1,2,4-Trichlorobenzene (120-82-1)	X			<10						1	ug/l				
GC/MS FRACTION — PESTICIDES															
1P. Aldrin (309-00-2)															
2P. α-BHC (319-84-6)															
3P. β-BHC (319-85-7)															
4P. γ-BHC (58-89-9)															
5P. δ-BHC (319-86-8)															
6P. Chlordane (57-74-9)															
7P. 4,4'-DDT (50-29-3)															
8P. 4,4'-DDE (72-55-9)															
9P. 4,4'-DDD (72-54-8)															
10P. Dieldrin (60-57-1)															
11P. α-Endosulfan (115-29-7)															
12P. β-Endosulfan (115-29-7)															
13P. Endosulfan Sulfate (1031-07-8)															
14P. Endrin (72-20-8)															
15P. Endrin Aldehyde (7421-93-4)															
16P. Heptachlor (76-44-8)															

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

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EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
GAD000612663	03

Form Approved.
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Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — PESTICIDES (continued)															
17P. Heptachlor Epoxide (1024-57-3)															
18P. PCB-1242 (53469-21-9)	x			<1.0						1	ug/l				
19P. PCB-1254 (11097-69-1)	x			<1.0						1	ug/l				
20P. PCB-1221 (11104-28-2)	x			<1.0						1	ug/l				
21P. PCB-1232 (11141-16-5)	x			<1.0						1	ug/l				
22P. PCB-1248 (12672-29-6)	x			<1.0						1	ug/l				
23P. PCB-1260 (11096-82-5)	x			<1.0						1	ug/l				
24P. PCB-1016 (12674-11-2)	x			<1.0						1	ug/l				
25P. Toxaphene (8001-35-2)															

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
GAD000612663

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Georgia Power – Plant Hammond 2016 Ash Pond 4 Emergency Overflow

OUTFALL NO. 04

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCEN-TRATION	b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	< 2.0						1	mg/l		<8.0		1
b. Chemical Oxygen Demand (COD)	< 10.0						1	mg/l		28.0		1
c. Total Organic Carbon (TOC)	< 1.0						1	mg/l		5.5		1
d. Total Suspended Solids (TSS)	43.9						1	mg/l		14		1
e. Ammonia *(as N)*	0.18						1	mg/l		0.12		1
f. Flow	VALUE Intermittent		VALUE		VALUE			gpm		VALUE		
g. Temperature *(winter)*	8.5		VALUE		VALUE		1	°C		VALUE		
h. Temperature *(summer)*	ambient		VALUE		VALUE			°C				
i. pH	6.29	6.29	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data for an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO. OF ANAL-YSES	4. UNITS a. CONCEN-TRATION	b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANAL-YSES
a. Bromide (24959-67-9)			1.3						1	mg/l		<1.0		1
b. Chlorine, Total Residual			< 0.1						1	mg/l		0.1		1
c. Color			< 40						1	PCU		80		1
d. Fecal Coliform			6						1	col/100 ml		390		1
e. Fluoride (16984-48-8)			0.8						1	mg/l		<0.10		1
f. Nitrate-Nitrite *(as N)*			0.23						1	mg/l		0.38		1

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	2. MARK 'X' b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
g. Nitrogen, Total Organic *(as N)*			<0.40						1	mg/l		<0.40		1
h. Oil and Grease			<5.7						1	mg/l		<5.7		1
I. Phosphorus (as P) Total (7723-14-0)			<0.2						1	mg/l		0.16		1
J. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate *(as SO_4)* (14808-79-8)			458						1	mg/l		5.4		1
l. Sulfide *(as SO_3)* (14265-45-3)			<0.2						1	mg/l		<0.2		1
m. Sulfite *(as SO_3)* (14265-45-3)			1.2						1	mg/l		0.64		1
n. Surfactants			<0.05						1	mg/l		<0.1		1
o. Aluminum, Total (7440-39-3)			1039						1	ug/l		1790		1
p. Barium, Total (7440-39-3)			89						1	ug/l		85.0		1
q. Boron, Total (7440-42-8)			6662						1	ug/l		<40		1
r. Cobalt, Total (7440-48-4)			<40						1	ug/l		<40		1
s. Iron, Total (7439-89-6)			1545						1	ug/l		3160		1
t. Magnesium, Total (7439-95-4)			30051						1	ug/l		3700		1
u. Molybdenum, Total (7439-98-7)			133						1	ug/l		<40		1
v. Manganese, Total (7439-96-5)			261						1	ug/l		262		1
w. Tin, Total (7440-31-5)			<40						1	ug/l		<40		1
x. Titanium, Total (7440-32-6)			<100						1	ug/l		<100		1

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON PAGE V-3

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612663	04

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CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for the pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			<5.0						1	ug/l		<5.0		1
2M. Arsenic, Total (7440-38-2)	X			9.8						1	ug/l		<5.0		1
3M. Beryllium, Total, 7440-41-7	X			<1.0						1	ug/l		<1.0		1
4M. Cadmium, Total (7440-43-9)	X			1.2						1	ug/l		<0.7		1
5M. Chromium Total (7440-47-3)	X			< 5.0						1	ug/l		<5.0		1
6M. Copper, Total (7440-50-8)	X			< 5.0						1	ug/l		<5.0		1
7M. Lead, Total (7439-92-1)	X			3.4						1	ug/l		<1.0		1
8M. Mercury, Total (7439-97-6)	X			0.0145						1	ug/l		0.0128		1
9M. Nickel, Total (7440-02-0)	X			54.5						1	ug/l		<5.0		1
10M. Selenium, Total (7782-49-2)	X			33.8						1	ug/l		<5.0		1
11M. Silver, Total (7440-22-4)	X			<5.0						1	ug/l		<5.0		1
12M. Thallium, Total (7440-28-0)	X			1.2						1	ug/l		<1.0		1
13M. Zinc, Total (7440-66-6)	X			173						1	ug/l		<10.0		1
14M. Cyanide, Total (57-12-5)	X			<20						1	ug/l		<20		1
15M. Phenols, Total	X			<50						1	ug/l		<50		1
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)				DESCRIBE RESULTS											

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1V. Acrolein (107-02-8)	X			<50						1	ug/l				
2V. Acrylonitrile (107-13-1)	X			<50						1	ug/l				
3V. Benzene (71-43-2)	X			<2.0						1	ug/l				
4V. Bis(*Chloromethyl*) Ether (542-88-1)			X	n/a						1	ug/l				
5V. Bromoform (75-25-2)	X			<10						1	ug/l				
6V. Carbon Tetrachloride(56-23-5)	X			<2.0						1	ug/l				
7V. Chlorobenzene (108-90-7)	X			<10						1	ug/l				
8V. Chlorodibromomethane (124-48-1)	X			<10						1	ug/l				
9V. Chloroethane (75-00-3)	X			<5.0						1	ug/l				
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	X			<10						1	ug/l				
11V. Chloroform (67-66-3)	X			<2.0						1	ug/l				
12V. Dichlorobromomethane (75-71-8)	X			<10						1	ug/l				
13V. Dichlorodifluoromethane (75-71-8)	X			<10						1	ug/l				
14V. 1,1-Dichloroethane (75-34-3)	X			<2.0						1	ug/l				
15V. 1,2-Dichloroethane (107-06-2)	X			<2.0						1	ug/l				
16V. 1,1-Dichloroethylene (75-35-4)	X			<2.0						1	ug/l				
17V. 1,2-Dichloropropane (78-87-5)	X			<2.0						1	ug/l				
18V. 1,3-Dichloropropylene (542-75-6)	X			<2.0						1	ug/l				
19V. Ethylbenzene (100-41-4)	X			<2.0						1	ug/l				
20V. Methyl Bromide (74-83-9)	X			<10						1	ug/l				
21V. Methyl Chloride (74-87-3)	X			<10						1	ug/l				

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	X			<10						1	ug/l				
23V.1,1,2,2Tetra-chloroethane (79-34-5)	X			<2.0						1	ug/l				
24V. Tetrachloroethylene (127-18-4)	X			<2.0						1	ug/l				
25V. Toluene (108-88-3)	X			<2.0						1	ug/l				
26V. 1,2-Trans-Dichloro-ethylene (156-60-5)	X			<2.0						1	ug/l				
27V. 1,1,1-Trichloroethane (71-56-6)	X			<2.0						1	ug/l				
28V. 1,1,2-Trichloroethane (79-00-5)	X			<2.0						1	ug/l				
29V. Trichloroethylene (79-01-6)	X			<2.0						1	ug/l				
30V. Trichlorofluoro-methane (75-69-4)	X			<10						1	ug/l				
31V. Vinyl Chloride (75-01-4)	X			<10						1	ug/l				
1A. 2-Chlorophenol (95-57-8)	X			<10						1	ug/l				
2A. 2,4-Dichlorophenol (120-83-2)	X			<10						1	ug/l				
3A. 2,4-Dimethylphenol (105-67-9)	X			<10						1	ug/l				
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			<50						1	ug/l				
5A. 2,4-Dinitrophenol (51-28-5)	X			<50						1	ug/l				
6A. 2-Nitrophenol (88-75-5)	X			<50						1	ug/l				
7A. 4-Nitrophenol (100-02-7)	X			<50						1	ug/l				
8A. P-Chloro-M-Cresol (59-50-7)	X			<10						1	ug/l				
9A. Pentachlorophenol (87-86-5)	X			<20						1	ug/l				
10A. Phenol (108-95-2)	X			<10						1	ug/l				
11A. 2,4,6-Trichloro-phenol (88-06-2)	X			<10						1	ug/l				

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			<10						1	ug/l				
2B. Acenaphtylene (208-96-8)	X			<10						1	ug/l				
3B. Anthracene (120-12-7)	X			<10						1	ug/l				
4B. Benzidine (92-87-5)	X			<80						1	ug/l				
5B. Benzo *(a)* Anthracene (56-55-3)	X			<10						1	ug/l				
6B. Benzo *(a)* Pyrene (50-32-8)	X			<10						1	ug/l				
7B. 3,4-Benzo-fluoranthene (205-99-2_	X			<10						1	ug/l				
8B. Benzo *(ghi)* Perylene (191-24-2)	X			<10						1	ug/l				
9B. Benzo *(k)*Fluoranthene (207-08-9)	X			<10						1	ug/l				
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	X			<10						1	ug/l				
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)	X			<10						1	ug/l				
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X			<10						1	ug/l				
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)	X			<10						1	ug/l				
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X			<10						1	ug/l				
15B. Butyl Benzyl Phthalate (85-68-7)	X			<10						1	ug/l				
16B. 2-Chloronaphthalene (91-58-7)	X			<10						1	ug/l				
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X			<10						1	ug/l				
18B. Chrysene (218-01-9)	X			<10						1	ug/l				
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X			<10						1	ug/l				
20B. 1,2-Dichloro-benzene (95-50-1)	X			<10						1	ug/l				
21B. 1,3-Dichloro-benzene (541-73-1)	X			<10						1	ug/l				

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

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GAD000612663	04

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)	X			<10						1	ug/l				
23B. 3,3-Dichlorobenzidine (91-94-1)	X			<20						1	ug/l				
24B. Diethyl Phthalate (84-66-2)	X			<10						1	ug/l				
25B. Dimethyl Phthalate (131-11-3)	X			<10						1	ug/l				
26B. Di-N-Butyl Phthalate (84-74-2)	X			<10						1	ug/l				
27B. 2,4-Dinitrotoluene (121-14-2)	X			<20						1	ug/l				
28B. 2,6-Dinitrotoluene (606-20-2)	X			<20						1	ug/l				
29B. Di-N-OctylPhthalate (117-84-0)	X			<10						1	ug/l				
30B. 1,2-Diphenyl-hydrazine *(as Azobenzene)* (122-66-7)	X			<10						1	ug/l				
31B. Fluoranthene (206-44-0)	X			<10						1	ug/l				
32B. Fluorene (86-73-7)	X			<10						1	ug/l				
33B. Hexachlorobenzene (118-74-1)	X			<10						1	ug/l				
34B. Hexachlorobutadiene (87-68-3)	X			<10						1	ug/l				
35B. Hexachlorocyclo-pentadiene (77-47-4)	X			<10						1	ug/l				
36B. Hexachloroethane (67-72-1)	X			<10						1	ug/l				
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	X			<10						1	ug/l				
38B. Isophorone (78-59-1)	X			<10						1	ug/l				
39B. Naphthalene (91-20-3)	X			<10						1	ug/l				
40B. Nitrobenzene (98-95-3)	X			<10						1	ug/l				
41B. N-Nitrosodimethylamine (62-75-9)	X			<10						1	ug/l				
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X			<10						1	ug/l				

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS (continued)															
43B. N-Nitrosodiphenylamine (86-30-6_	X			<10						1	ug/l				
44B. Phenanthrene (85-01-8)	X			<10						1	ug/l				
45B. Pyrene (129-00-0)	X			<10						1	ug/l				
46B. 1,2,4-Trichlorobenzene (120-82-1)	X			<10						1	ug/l				
GC/MS FRACTION — PESTICIDES															
1P. Aldrin (309-00-2)															
2P. α-BHC (319-84-6)															
3P. β-BHC (319-85-7)															
4P. γ-BHC (58-89-9)															
5P. δ-BHC (319-86-8)															
6P. Chlordane (57-74-9)															
7P. 4,4'-DDT (50-29-3)															
8P. 4,4'-DDE (72-55-9)															
9P. 4,4'-DDD (72-54-8)															
10P. Dieldrin (60-57-1)															
11P. α-Endosulfan (115-29-7)															
12P. β-Endosulfan (115-29-7)															
13P. Endosulfan Sulfate (1031-07-8)															
14P. Endrin (72-20-8)															
15P. Endrin Aldehyde (7421-93-4)															
16P. Heptachlor (76-44-8)															

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON PAGE V-9

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
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1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)															
18P. PCB-1242 (53469-21-9)	X			<1.0						1	ug/l				
19P. PCB-1254 (11097-69-1)	X			<1.0						1	ug/l				
20P. PCB-1221 (11104-28-2)	X			<1.0						1	ug/l				
21P. PCB-1232 (11141-16-5)	X			<1.0						1	ug/l				
22P. PCB-1248 (12672-29-6)	X			<1.0						1	ug/l				
23P. PCB-1260 (11096-82-5)	X			<1.0						1	ug/l				
24P. PCB-1016 (12674-11-2)	X			<1.0						1	ug/l				
25P. Toxaphene (8001-35-2)															

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*: GAD000612663

Form Approved. OMB No. 2040-0086 Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

Georgia Power – Plant Hammond 2016 Intake Screen Backwash

OUTFALL NO. 05

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCEN-TRATION	b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	<8.0						1	mg/l		<8.0		1
b. Chemical Oxygen Demand (COD)	28.0						1	mg/l		28.0		1
c. Total Organic Carbon (TOC)	5.5						1	mg/l		5.5		1
d. Total Suspended Solids (TSS)	14.0						1	mg/l		14		1
e. Ammonia *(as N)*	0.12						1	mg/l		0.12		1
f. Flow	VALUE 1,500		VALUE		VALUE		1	gpm		VALUE		
g. Temperature* *(winter)*	22.8		VALUE		VALUE		1	°C		VALUE		
h. Temperature* *(summer)*	27.4		VALUE		VALUE		1	°C				
i. pH	6.06	6.06	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data for an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO. OF ANAL-YSES	4. UNITS a. CONCEN-TRATION	b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANAL-YSES
a. Bromide (24959-67-9)			<1.0						1	mg/l		<1.0		1
b. Chlorine, Total Residual			0.1						1	mg/l		0.1		1
c. Color			80						1	PCU		80		1
d. Fecal Coliform			390						1	col/100 ml		390		1
e. Fluoride (16984-48-8)			<0.10						1	mg/l		<0.10		1
f. Nitrate-Nitrite *(as N)*			0.38						1	mg/l		0.38		1

*Ambient river temperatures obtained from USGS 02397000 (Mayo's Bar) in 2014.

CONTINUE ON REVERSE

Hammond 2016 – Outfall 05 Resubmittal

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	2. MARK 'X' b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
g. Nitrogen, Total Organic *(as N)*			<0.40						1	mg/l		<0.40		1
h. Oil and Grease			<5.7						1	mg/l		<5.7		1
I. Phosphorus (as P) Total (7723-14-0)			0.16						1	mg/l		0.16		1
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate *(as SO_4)* (14808-79-8)			5.4						1	mg/l		5.4		1
l. Sulfide *(as SO_3)* (14265-45-3)			<0.2						1	mg/l		<0.2		1
m. Sulfite *(as SO_3)* (14265-45-3)			0.64						1	mg/l		0.64		1
n. Surfactants			<0.1						1	mg/l		<0.1		1
o. Aluminum, Total (7440-39-3)			1790						1	ug/l		1790		1
p. Barium, Total (7440-39-3)			85.0						1	ug/l		85.0		1
q. Boron, Total (7440-42-8)			<40						1	ug/l		<40		1
r. Cobalt, Total (7440-48-4)			<40						1	ug/l		<40		1
s. Iron, Total (7439-89-6)			3160						1	ug/l		3160		1
t. Magnesium, Total (7439-95-4)			3700						1	ug/l		3700		1
u. Molybdenum, Total (7439-98-7)			<40						1	ug/l		<40		1
v. Manganese, Total (7439-96-5)			262						1	ug/l		262		1
w. Tin, Total (7440-31-5)			<40						1	ug/l		<40		1
x. Titanium, Total (7440-32-6)			<100						1	ug/l		<100		1

CONTINUE ON PAGE V-3

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
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PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for the pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			<5.0						1	ug/l		<5.0		1
2M. Arsenic, Total (7440-38-2)	X			<5.0						1	ug/l		<5.0		1
3M. Beryllium, Total, 7440-41-7	X			<1.0						1	ug/l		<1.0		1
4M. Cadmium, Total (7440-43-9)	X			<0.7						1	ug/l		<0.7		1
5M. Chromium Total (7440-47-3)	X			<5.0						1	ug/l		<5.0		1
6M. Copper, Total (7440-50-8)	X			<5.0						1	ug/l		<5.0		1
7M. Lead, Total (7439-92-1)	X			<1.0						1	ug/l		<1.0		1
8M. Mercury, Total (7439-97-6)	X			0.0128						1	ug/l		0.0128		1
9M. Nickel, Total (7440-02-0)	X			<5.0						1	ug/l		<5.0		1
10M. Selenium, Total (7782-49-2)	X			<5.0						1	ug/l		<5.0		1
11M. Silver, Total (7440-22-4)	X			<5.0						1	ug/l		<5.0		1
12M. Thallium, Total (7440-28-0)	X			<1.0						1	ug/l		<1.0		1
13M. Zinc, Total (7440-66-6)	X			<10.0						1	ug/l		<10.0		1
14M. Cyanide, Total (57-12-5)	X			<20						1	ug/l		<20		1
15M. Phenols, Total	X			<50						1	ug/l		<50		1
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)															

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1V. Acrolein (107-02-8)	X			<50						1	ug/l				
2V. Acrylonitrile (107-13-1)	X			<50						1	ug/l				
3V. Benzene (71-43-2)	X			<2.0						1	ug/l				
4V. Bis(*Chloromethyl*) Ether (542-88-1)			X	N/A											
5V. Bromoform (75-25-2)	X			<10							ug/l				
6V. Carbon Tetrachloride(56-23-5)	X			<2.0						1	ug/l				
7V. Chlorobenzene (108-90-7)	X			<10						1	ug/l				
8V. Chlorodibromomethane (124-48-1)	X			<10						1	ug/l				
9V. Chloroethane (75-00-3)	X			<5.0						1	ug/l				
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	X			<10						1	ug/l				
11V. Chloroform (67-66-3)	X			<2.0						1	ug/l				
12V. Dichlorobromomethane (75-71-8)	X			<10						1	ug/l				
13V. Dichlorodifluoromethane (75-71-8)	X			<10						1	ug/l				
14V. 1,1-Dichloroethane (75-34-3)	X			<2.0						1	ug/l				
15V. 1,2-Dichloroethane (107-06-2)	X			<2.0						1	ug/l				
16V. 1,1-Dichloroethylene (75-35-4)	X			<2.0						1	ug/l				
17V. 1,2-Dichloropropane (78-87-5)	X			<2.0						1	ug/l				
18V. 1,3-Dichloropropylene (542-75-6)	X			<2.0						1	ug/l				
19V. Ethylbenzene (100-41-4)	X			<2.0						1	ug/l				
20V. Methyl Bromide (74-83-9)	X			<10						1	ug/l				
21V. Methyl Chloride (74-87-3)	X			<10						1	ug/l				

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CONTINUED FROM PAGE V-4

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	X			<10						1	ug/l				
23V.1,1,2,2Tetra-chloroethane (79-34-5)	X			<2.0						1	ug/l				
24V. Tetrachloroethylene (127-18-4)	X			<2.0						1	ug/l				
25V. Toluene (108-88-3)	X			<2.0						1	ug/l				
26V. 1,2-Trans-Dichloro-ethylene (156-60-5)	X			<2.0						1	ug/l				
27V. 1,1,1-Trichloroethane (71-56-6)	X			<2.0						1	ug/l				
28V. 1,1,2-Trichloroethane (79-00-5)	X			<2.0						1	ug/l				
29V. Trichloroethylene (79-01-6)	X			<2.0						1	ug/l				
30V. Trichlorofluoro-methane (75-69-4)	X			<10						1	ug/l				
31V. Vinyl Chloride (75-01-4)	X			<10						1	ug/l				
1A. 2-Chlorophenol (95-57-8)	X			<10						1	ug/l				
2A. 2,4-Dichlorophenol (120-83-2)	X			<10						1	ug/l				
3A. 2,4-Dimethylphenol (105-67-9)	X			<10						1	ug/l				
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			<50						1	ug/l				
5A. 2,4-Dinitrophenol (51-28-5)	X			<50						1	ug/l				
6A. 2-Nitrophenol (88-75-5)	X			<50						1	ug/l				
7A. 4-Nitrophenol (100-02-7)	X			<50						1	ug/l				
8A. P-Chloro-M-Cresol (59-50-7)	X			<10						1	ug/l				
9A. Pentachlorophenol (87-86-5)	X			<20						1	ug/l				
10A. Phenol (108-95-2)	X			<10						1	ug/l				
11A. 2,4,6-Trichloro-phenol (88-06-2)	X			<10						1	ug/l				

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			<10						1	ug/l				
2B. Acenaphtylene (208-96-8)	X			<10						1	ug/l				
3B. Anthracene (120-12-7)	X			<10						1	ug/l				
4B. Benzidine (92-87-5)	X			<80						1	ug/l				
5B. Benzo *(a)* Anthracene (56-55-3)	X			<10						1	ug/l				
6B. Benzo *(a)* Pyrene (50-32-8)	X			<10						1	ug/l				
7B. 3,4-Benzo-fluoranthene (205-99-2_	X			<10						1	ug/l				
8B. Benzo *(ghi)* Perylene (191-24-2)	X			<10						1	ug/l				
9B. Benzo *(k)*Fluoranthene (207-08-9)	X			<10						1	ug/l				
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	X			<10						1	ug/l				
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)	X			<10						1	ug/l				
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X			<10						1	ug/l				
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)	X			<10						1	ug/l				
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X			<10						1	ug/l				
15B. Butyl Benzyl Phthalate (85-68-7)	X			<10						1	ug/l				
16B. 2-Chloronaphthalene (91-58-7)	X			<10						1	ug/l				
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X			<10						1	ug/l				
18B. Chrysene (218-01-9)	X			<10						1	ug/l				
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X			<10						1	ug/l				
20B. 1,2-Dichloro-benzene (95-50-1)	X			<10						1	ug/l				
21B. 1,3-Dichloro-benzene (541-73-1)	X			<10						1	ug/l				

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EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
GAD000612663	05

Form Approved.
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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)	X			<10						1	ug/l				
23B. 3,3-Dichlorobenzidine (91-94-1)	X			<20						1	ug/l				
24B. Diethyl Phthalate (84-66-2)	X			<10						1	ug/l				
25B. Dimethyl Phthalate (131-11-3)	X			<10						1	ug/l				
26B. Di-N-Butyl Phthalate (84-74-2)	X			<10						1	ug/l				
27B. 2,4-Dinitrotoluene (121-14-2)	X			<20						1	ug/l				
28B. 2,6-Dinitrotoluene (606-20-2)	X			<20						1	ug/l				
29B. Di-N-OctylPhthalate (117-84-0)	X			<10						1	ug/l				
30B. 1,2-Diphenyl-hydrazine *(as Azobenzene)* (122-66-7)	X			<10						1	ug/l				
31B. Fluoranthene (206-44-0)	X			<10						1	ug/l				
32B. Fluorene (86-73-7)	X			<10						1	ug/l				
33B. Hexachlorobenzene (118-74-1)	X			<10						1	ug/l				
34B. Hexachlorobutadiene (87-68-3)	X			<10						1	ug/l				
35B. Hexachlorocyclo-pentadiene (77-47-4)	X			<10						1	ug/l				
36B. Hexachloroethane (67-72-1)	X			<10						1	ug/l				
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	X			<10						1	ug/l				
38B. Isophorone (78-59-1)	X			<10						1	ug/l				
39B. Naphthalene (91-20-3)	X			<10						1	ug/l				
40B. Nitrobenzene (98-95-3)	X			<10						1	ug/l				
41B. N-Nitrosodimethylamine (62-75-9)	X			<10						1	ug/l				
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X			<10						1	ug/l				

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS (continued)															
43B. N-Nitrosodiphenylamine (86-30-6_	X			<10						1	ug/l				
44B. Phenanthrene (85-01-8)	X			<10						1	ug/l				
45B. Pyrene (129-00-0)	X			<10						1	ug/l				
46B. 1,2,4-Trichlorobenzene (120-82-1)	X			<10						1	ug/l				
1P. Aldrin (309-00-2)															
2P. α-BHC (319-84-6)															
3P. β-BHC (319-85-7)															
4P. γ-BHC (58-89-9)															
5P. δ-BHC (319-86-8)															
6P. Chlordane (57-74-9)															
7P. 4,4'-DDT (50-29-3)															
8P. 4,4'-DDE (72-55-9)															
9P. 4,4'-DDD (72-54-8)															
10P. Dieldrin (60-57-1)															
11P. α-Endosulfan (115-29-7)															
12P. β-Endosulfan (115-29-7)															
13P. Endosulfan Sulfate (1031-07-8)															
14P. Endrin (72-20-8)															
15P. Endrin Aldehyde (7421-93-4)															
16P. Heptachlor (76-44-8)															

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EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
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Form Approved.
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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — PESTICIDES (continued)															
17P. Heptachlor Epoxide (1024-57-3)															
18P. PCB-1242 (53469-21-9)	X			<1.0						1	ug/l				
19P. PCB-1254 (11097-69-1)	X			<1.0						1	ug/l				
20P. PCB-1221 (11104-28-2)	X			<1.0						1	ug/l				
21P. PCB-1232 (11141-16-5)	X			<1.0						1	ug/l				
22P. PCB-1248 (12672-29-6)	X			<1.0						1	ug/l				
23P. PCB-1260 (11096-82-5)	X			<1.0						1	ug/l				
24P. PCB-1016 (12674-11-2)	X			<1.0						1	ug/l				
25P. Toxaphene (8001-35-2)															

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
GAD000612663

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V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

Georgia Power – Plant Hammond 2016 Ash Pond 3 Emergency Overflow

OUTFALL NO. 10

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCEN-TRATION	b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	< 2.0						1	mg/l		<8.0		1
b. Chemical Oxygen Demand (COD)	< 10.0						1	mg/l		28.0		1
c. Total Organic Carbon (TOC)	< 1.0						1	mg/l		5.5		1
d. Total Suspended Solids (TSS)	43.9						1	mg/l		14.0		1
e. Ammonia *(as N)*	0.18						1	mg/l		0.12		1
f. Flow	VALUE Intermittent		VALUE		VALUE			gpm		VALUE		
g. Temperature *(winter)*	8.5		VALUE		VALUE		1	°C		VALUE		
h. Temperature *(summer)*	ambient		VALUE		VALUE			°C				
i. pH	6.29	6.29	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data for an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO. OF ANAL-YESES	4. UNITS a. CONCEN-TRATION	b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANAL-YSES
a. Bromide (24959-67-9)			1.3						1	mg/l		<1.0		1
b. Chlorine, Total Residual			< 0.1						1	mg/l		0.1		
c. Color			< 40						1	PCU		80		
d. Fecal Coliform			6						1	col/100 ml		390		1
e. Fluoride (16984-48-8)			0.8						1	mg/l		<.10		1
f. Nitrate-Nitrite *(as N)*			0.23						1	mg/l		0.38		1

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	2. MARK 'X' b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
g. Nitrogen, Total Organic *(as N)*			<0.40						1	mg/l		<0.40		1
h. Oil and Grease			<5.7						1	mg/l		<5.7		1
I. Phosphorus (as P) Total (7723-14-0)			<0.2						1	mg/l		0.16		1
J. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate *(as SO_4)* (14808-79-8)			458						1	mg/l		5.4		1
l. Sulfide *(as SO_3)* (14265-45-3)			<0.2						1	mg/l		<0.2		1
m. Sulfite *(as SO_3)* (14265-45-3)			1.2						1	mg/l		0.64		1
n. Surfactants			<0.05						1	mg/l		<0.1		1
o. Aluminum, Total (7440-39-3)			1039						1	ug/l		1790		1
p. Barium, Total (7440-39-3)			89						1	ug/l		85.0		1
q. Boron, Total (7440-42-8)			6662						1	ug/l		<40		1
r. Cobalt, Total (7440-48-4)			<40						1	ug/l		<40		1
s. Iron, Total (7439-89-6)			1545						1	ug/l		3160		1
t. Magnesium, Total (7439-95-4)			30051						1	mg/l		3700		1
u. Molybdenum, Total (7439-98-7)			133						1	ug/l		<40		1
v. Manganese, Total (7439-96-5)			261						1	ug/l		262		1
w. Tin, Total (7440-31-5)			<40						1	ug/l		<40		1
x. Titanium, Total (7440-32-6)			<100						1	ug/l		<100		1

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON PAGE V-3

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612663	10

Form Approved.
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CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for the pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part: please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			<5.0						1	ug/l		<5.0		1
2M. Arsenic, Total (7440-38-2)	X			9.8						1	ug/l		<5.0		1
3M. Beryllium, Total, 7440-41-7	X			<1.0						1	ug/l		<1.0		1
4M. Cadmium, Total (7440-43-9)	X			1.2						1	ug/l		<0.7		1
5M. Chromium Total (7440-47-3)	X			< 5.0						1	ug/l		<5.0		1
6M. Copper, Total (7440-50-8)	X			< 5.0						1	ug/l		<5.0		1
7M. Lead, Total (7439-92-1)	X			3.4						1	ug/l		<1.0		1
8M. Mercury, Total (7439-97-6)	X			0.0145						1	ug/l		0.0128		1
9M. Nickel, Total (7440-02-0)	X			54.5						1	ug/l		<5.0		1
10M. Selenium, Total (7782-49-2)	X			33.8						1	ug/l		<5.0		1
11M. Silver, Total (7440-22-4)	X			<5.0						1	ug/l		<5.0		1
12M. Thallium, Total (7440-28-0)	X			1.2						1	ug/l		<1.0		1
13M. Zinc, Total (7440-66-6)	X			173						1	ug/l		<10.0		1
14M. Cyanide, Total (57-12-5)	X			<20						1	ug/l		<20		1
15M. Phenols, Total	X			<50						1	ug/l		<50		1
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)				DESCRIBE RESULTS											

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1V. Acrolein (107-02-8)	X			<50						1	ug/l				
2V. Acrylonitrile (107-13-1)	X			<50						1	ug/l				
3V. Benzene (71-43-2)	X			<2.0						1	ug/l				
4V. Bis(*Chloromethyl*) Ether (542-88-1)			X	n/a						1	ug/l				
5V. Bromoform (75-25-2)	X			<10						1	ug/l				
6V. Carbon Tetrachloride(56-23-5)	X			<2.0						1	ug/l				
7V. Chlorobenzene (108-90-7)	X			<10						1	ug/l				
8V. Chlorodibromo-methane (124-48-1)	X			<10						1	ug/l				
9V. Chloroethane (75-00-3)	X			<5.0						1	ug/l				
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	X			<10						1	ug/l				
11V. Chloroform (67-66-3)	X			<2.0						1	ug/l				
12V. Dichlorobromo-methane (75-71-8)	X			<10						1	ug/l				
13V. Dichlorodifluoro-methane (75-71-8)	X			<10						1	ug/l				
14V. 1,1-Dichloro-ethane (75-34-3)	X			<2.0						1	ug/l				
15V. 1,2-Dichloro-ethane (107-06-2)	X			<2.0						1	ug/l				
16V. 1,1-Dichloro-ethylene (75-35-4)	X			<2.0						1	ug/l				
17V. 1,2-Dichloro-propane (78-87-5)	X			<2.0						1	ug/l				
18V. 1,3-Dichloro-propylene (542-75-6)	X			<2.0						1	ug/l				
19V. Ethylbenzene (100-41-4)	X			<2.0						1	ug/l				
20V. Methyl Bromide (74-83-9)	X			<10						1	ug/l				
21V. Methyl Chloride (74-87-3)	X			<10						1	ug/l				

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

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EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	X			<10						1	ug/l				
23V.1,1,2,2Tetra-chloroethane (79-34-5)	X			<2.0						1	ug/l				
24V. Tetrachloroethylene (127-18-4)	X			<2.0						1	ug/l				
25V. Toluene (108-88-3)	X			<2.0						1	ug/l				
26V. 1,2-Trans-Dichloro-ethylene (156-60-5)	X			<2.0						1	ug/l				
27V. 1,1,1-Trichloroethane (71-56-6)	X			<2.0						1	ug/l				
28V. 1,1,2-Trichloroethane (79-00-5)	X			<2.0						1	ug/l				
29V. Trichloroethylene (79-01-6)	X			<2.0						1	ug/l				
30V. Trichlorofluoro-methane (75-69-4)	X			<10						1	ug/l				
31V. Vinyl Chloride (75-01-4)	X			<10						1	ug/l				
1A. 2-Chlorophenol (95-57-8)	X			<10						1	ug/l				
2A. 2,4-Dichlorophenol (120-83-2)	X			<10						1	ug/l				
3A. 2,4-Dimethylphenol (105-67-9)	X			<10						1	ug/l				
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			<50						1	ug/l				
5A. 2,4-Dinitrophenol (51-28-5)	X			<50						1	ug/l				
6A. 2-Nitrophenol (88-75-5)	X			<50						1	ug/l				
7A. 4-Nitrophenol (100-02-7)	X			<50						1	ug/l				
8A. P-Chloro-M-Cresol (59-50-7)	X			<10						1	ug/l				
9A. Pentachlorophenol (87-86-5)	X			<20						1	ug/l				
10A. Phenol (108-95-2)	X			<10						1	ug/l				
11A. 2,4,6-Trichloro-phenol (88-06-2)	X			<10						1	ug/l				

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			<10						1	ug/l				
2B. Acenaphtylene (208-96-8)	X			<10						1	ug/l				
3B. Anthracene (120-12-7)	X			<10						1	ug/l				
4B. Benzidine (92-87-5)	X			<80						1	ug/l				
5B. Benzo *(a)* Anthracene (56-55-3)	X			<10						1	ug/l				
6B. Benzo *(a)* Pyrene (50-32-8)	X			<10						1	ug/l				
7B. 3,4-Benzo-fluoranthene (205-99-2_	X			<10						1	ug/l				
8B. Benzo *(ghi)* Perylene (191-24-2)	X			<10						1	ug/l				
9B. Benzo *(k)*Fluoranthene (207-08-9)	X			<10						1	ug/l				
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	X			<10						1	ug/l				
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)	X			<10						1	ug/l				
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X			<10						1	ug/l				
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)	X			<10						1	ug/l				
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X			<10						1	ug/l				
15B. Butyl Benzyl Phthalate (85-68-7)	X			<10						1	ug/l				
16B. 2-Chloronaphthalene (91-58-7)	X			<10						1	ug/l				
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X			<10						1	ug/l				
18B. Chrysene (218-01-9)	X			<10						1	ug/l				
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X			<10						1	ug/l				
20B. 1,2-Dichloro-benzene (95-50-1)	X			<10						1	ug/l				
21B. 1,3-Dichloro-benzene (541-73-1)	X			<10						1	ug/l				

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON PAGE V-7

CONTINUED FROM PAGE V-6

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
GAD000612663	10

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)	X			<10						1	ug/l				
23B. 3,3-Dichlorobenzidine (91-94-1)	X			<20						1	ug/l				
24B. Diethyl Phthalate (84-66-2)	X			<10						1	ug/l				
25B. Dimethyl Phthalate (131-11-3)	X			<10						1	ug/l				
26B. Di-N-Butyl Phthalate (84-74-2)	X			<10						1	ug/l				
27B. 2,4-Dinitrotoluene (121-14-2)	X			<20						1	ug/l				
28B. 2,6-Dinitrotoluene (606-20-2)	X			<20						1	ug/l				
29B. Di-N-OctylPhthalate (117-84-0)	X			<10						1	ug/l				
30B. 1,2-Diphenyl-hydrazine *(as Azobenzene)* (122-66-7)	X			<10						1	ug/l				
31B. Fluoranthene (206-44-0)	X			<10						1	ug/l				
32B. Fluorene (86-73-7)	X			<10						1	ug/l				
33B. Hexachlorobenzene (118-74-1)	X			<10						1	ug/l				
34B. Hexachlorobutadiene (87-68-3)	X			<10						1	ug/l				
35B. Hexachlorocyclo-pentadiene (77-47-4)	X			<10						1	ug/l				
36B. Hexachloroethane (67-72-1)	X			<10						1	ug/l				
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	X			<10						1	ug/l				
38B. Isophorone (78-59-1)	X			<10						1	ug/l				
39B. Naphthalene (91-20-3)	X			<10						1	ug/l				
40B. Nitrobenzene (98-95-3)	X			<10						1	ug/l				
41B. N-Nitrosodimethylamine (62-75-9)	X			<10						1	ug/l				
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X			<10						1	ug/l				

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS (continued)															
43B. N-Nitrosodiphenylamine (86-30-6_	X			<10						1	ug/l				
44B. Phenanthrene (85-01-8)	X			<10						1	ug/l				
45B. Pyrene (129-00-0)	X			<10						1	ug/l				
46B. 1,2,4-Trichlorobenzene (120-82-1)	X			<10						1	ug/l				
GC/MS FRACTION — PESTICIxDES															
1P. Aldrin (309-00-2)															
2P. α-BHC (319-84-6)															
3P. β-BHC (319-85-7)															
4P. γ-BHC (58-89-9)															
5P. δ-BHC (319-86-8)															
6P. Chlordane (57-74-9)															
7P. 4,4'-DDT (50-29-3)															
8P. 4,4'-DDE (72-55-9)															
9P. 4,4'-DDD (72-54-8)															
10P. Dieldrin (60-57-1)															
11P. α-Endosulfan (115-29-7)															
12P. β-Endosulfan (115-29-7)															
13P. Endosulfan Sulfate (1031-07-8)															
14P. Endrin (72-20-8)															
15P. Endrin Aldehyde (7421-93-4)															
16P. Heptachlor (76-44-8)															

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

CONTINUE ON PAGE V-9

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
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1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)															
18P. PCB-1242 (53469-21-9)	X			<1.0						1	ug/l				
19P. PCB-1254 (11097-69-1)	X			<1.0						1	ug/l				
20P. PCB-1221 (11104-28-2)	X			<1.0						1	ug/l				
21P. PCB-1232 (11141-16-5)	X			<1.0						1	ug/l				
22P. PCB-1248 (12672-29-6)	X			<1.0						1	ug/l				
23P. PCB-1260 (11096-82-5)	X			<1.0						1	ug/l				
24P. PCB-1016 (12674-11-2)	X			<1.0						1	ug/l				
25P. Toxaphene (8001-35-2)															

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
GAD000612663

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V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

Georgia Power – Plant Hammond 2016 Intake Screen Backwash

OUTFALL NO. 05

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCEN-TRATION	3. UNITS b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	<8.0						1	mg/l		<8.0		1
b. Chemical Oxygen Demand (COD)	28.0						1	mg/l		28.0		1
c. Total Organic Carbon (TOC)	5.5						1	mg/l		5.5		1
d. Total Suspended Solids (TSS)	14.0						1	mg/l		14		1
e. Ammonia *(as N)*	0.12						1	mg/l		0.12		1
f. Flow	VALUE 1.500		VALUE		VALUE		1	gpm		VALUE		
g. Temperature* *(winter)*	22.8		VALUE		VALUE		1	°C		VALUE		
h. Temperature* *(summer)*	27.4		VALUE		VALUE		1	°C				
i. pH	6.06	6.06	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data for an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	2. MARK 'X' b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANAL-YESES	4. UNITS a. CONCEN-TRATION	4. UNITS b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANAL-YSES
a. Bromide (24959-67-9)			<1.0						1	mg/l		<1.0		1
b. Chlorine, Total Residual			0.1						1	mg/l		0.1		1
c. Color			80						1	PCU		80		1
d. Fecal Coliform			390						1	col/100 ml		390		1
e. Fluoride (16984-48-8)			<0.10						1	mg/l		<0.10		1
f. Nitrate-Nitrite *(as N)*			0.38						1	mg/l		0.38		1

*Ambient river temperatures obtained from USGS 02397000 (Mayo's Bar) in 2014.

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	2. MARK 'X' b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
g. Nitrogen, Total Organic *(as N)*			<0.40						1	mg/l		<0.40		1
h. Oil and Grease			<5.7						1	mg/l		<5.7		1
I. Phosphorus (as P) Total (7723-14-0)			0.16						1	mg/l		0.16		1
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate *(as SO_4)* (14808-79-8)			5.4						1	mg/l		5.4		1
l. Sulfide *(as SO_3)* (14265-45-3)			<0.2						1	mg/l		<0.2		1
m. Sulfite *(as SO_3)* (14265-45-3)			0.64						1	mg/l		0.64		1
n. Surfactants			<0.1						1	mg/l		<0.1		1
o. Aluminum, Total (7440-39-3)			1790						1	ug/l		1790		1
p. Barium, Total (7440-39-3)			85.0						1	ug/l		85.0		1
q. Boron, Total (7440-42-8)			<40						1	ug/l		<40		1
r. Cobalt, Total (7440-48-4)			<40						1	ug/l		<40		1
s. Iron, Total (7439-89-6)			3160						1	ug/l		3160		1
t. Magnesium, Total (7439-95-4)			3700						1	ug/l		3700		1
u. Molybdenum, Total (7439-98-7)			<40						1	ug/l		<40		1
v. Manganese, Total (7439-96-5)			262						1	ug/l		262		1
w. Tin, Total (7440-31-5)			<40						1	ug/l		<40		1
x. Titanium, Total (7440-32-6)			<100						1	ug/l		<100		1

CONTINUE ON PAGE V-3

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612663	05

Form Approved.
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PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for the pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2.4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			<5.0						1	ug/l		<5.0		1
2M. Arsenic, Total (7440-38-2)	X			<5.0						1	ug/l		<5.0		1
3M. Beryllium, Total, 7440-41-7	X			<1.0						1	ug/l		<1.0		1
4M. Cadmium, Total (7440-43-9)	X			<0.7						1	ug/l		<0.7		1
5M. Chromium Total (7440-47-3)	X			<5.0						1	ug/l		<5.0		1
6M. Copper, Total (7440-50-8)	X			<5.0						1	ug/l		<5.0		1
7M. Lead, Total (7439-92-1)	X			<1.0						1	ug/l		<1.0		1
8M. Mercury, Total (7439-97-6)	X			0.0128						1	ug/l		0.0128		1
9M. Nickel, Total (7440-02-0)	X			<5.0						1	ug/l		<5.0		1
10M. Selenium, Total (7782-49-2)	X			<5.0						1	ug/l		<5.0		1
11M. Silver, Total (7440-22-4)	X			<5.0						1	ug/l		<5.0		1
12M. Thallium, Total (7440-28-0)	X			<1.0						1	ug/l		<1.0		1
13M. Zinc, Total (7440-66-6)	X			<10.0						1	ug/l		<10.0		1
14M. Cyanide, Total (57-12-5)	X			<20						1	ug/l		<20		1
15M. Phenols, Total	X			<50						1	ug/l		<50		1
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)															

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1V. Acrolein (107-02-8)	X			<50						1	ug/l				
2V. Acrylonitrile (107-13-1)	X			<50						1	ug/l				
3V. Benzene (71-43-2)	X			<2.0						1	ug/l				
4V. Bis*(Chloromethyl)* Ether (542-88-1)			X	N/A											
5V. Bromoform (75-25-2)	X			<10							ug/l				
6V. Carbon Tetrachloride(56-23-5)	X			<2.0						1	ug/l				
7V. Chlorobenzene (108-90-7)	X			<10						1	ug/l				
8V. Chlorodibromo-methane (124-48-1)	X			<10						1	ug/l				
9V. Chloroethane (75-00-3)	X			<5.0						1	ug/l				
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	X			<10						1	ug/l				
11V. Chloroform (67-66-3)	X			<2.0						1	ug/l				
12V. Dichlorobromo-methane (75-71-8)	X			<10						1	ug/l				
13V. Dichlorodifluoro-methane (75-71-8)	X			<10						1	ug/l				
14V. 1,1-Dichloro-ethane (75-34-3)	X			<2.0						1	ug/l				
15V. 1,2-Dichloro-ethane (107-06-2)	X			<2.0						1	ug/l				
16V. 1,1-Dichloro-ethylene (75-35-4)	X			<2.0						1	ug/l				
17V. 1,2-Dichloro-propane (78-87-5)	X			<2.0						1	ug/l				
18V. 1,3-Dichloro-propylene (542-75-6)	X			<2.0						1	ug/l				
19V. Ethylbenzene (100-41-4)	X			<2.0						1	ug/l				
20V. Methyl Bromide (74-83-9)	X			<10						1	ug/l				
21V. Methyl Chloride (74-87-3)	X			<10						1	ug/l				

CONTINUE ON PAGE V-5

CONTINUED FROM PAGE V-4

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612663	05

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)	X			<10						1	ug/l				
23V.1,1,2,2Tetra-chloroethane (79-34-5)	X			<2.0						1	ug/l				
24V. Tetrachloroethylene (127-18-4)	X			<2.0						1	ug/l				
25V. Toluene (108-88-3)	X			<2.0						1	ug/l				
26V. 1,2-Trans-Dichloro-ethylene (156-60-5)	X			<2.0						1	ug/l				
27V. 1,1,1-Trichloroethane (71-56-6)	X			<2.0						1	ug/l				
28V. 1,1,2-Trichloroethane (79-00-5)	X			<2.0						1	ug/l				
29V. Trichloroethylene (79-01-6)	X			<2.0						1	ug/l				
30V. Trichlorofluoro-methane (75-69-4)	X			<10						1	ug/l				
31V. Vinyl Chloride (75-01-4)	X			<10						1	ug/l				
1A. 2-Chlorophenol (95-57-8)	X			<10						1	ug/l				
2A. 2,4-Dichlorophenol (120-83-2)	X			<10						1	ug/l				
3A. 2,4-Dimethylphenol (105-67-9)	X			<10						1	ug/l				
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			<50						1	ug/l				
5A. 2,4-Dinitrophenol (51-28-5)	X			<50						1	ug/l				
6A. 2-Nitrophenol (88-75-5)	X			<50						1	ug/l				
7A. 4-Nitrophenol (100-02-7)	X			<50						1	ug/l				
8A. P-Chloro-M-Cresol (59-50-7)	X			<10						1	ug/l				
9A. Pentachlorophenol (87-86-5)	X			<20						1	ug/l				
10A. Phenol (108-95-2)	X			<10						1	ug/l				
11A. 2,4,6-Trichloro-phenol (88-06-2)	X			<10						1	ug/l				

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			<10						1	ug/l				
2B. Acenaphtylene (208-96-8)	X			<10						1	ug/l				
3B. Anthracene (120-12-7)	X			<10						1	ug/l				
4B. Benzidine (92-87-5)	X			<80						1	ug/l				
5B. Benzo *(a)* Anthracene (56-55-3)	X			<10						1	ug/l				
6B. Benzo *(a)* Pyrene (50-32-8)	X			<10						1	ug/l				
7B. 3,4-Benzo-fluoranthene (205-99-2	X			<10						1	ug/l				
8B. Benzo *(ghi)* Perylene (191-24-2)	X			<10						1	ug/l				
9B. Benzo *(k)*Fluoranthene (207-08-9)	X			<10						1	ug/l				
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	X			<10						1	ug/l				
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)	X			<10						1	ug/l				
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X			<10						1	ug/l				
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)	X			<10						1	ug/l				
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X			<10						1	ug/l				
15B. Butyl Benzyl Phthalate (85-68-7)	X			<10						1	ug/l				
16B. 2-Chloronaphthalene (91-58-7)	X			<10						1	ug/l				
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X			<10						1	ug/l				
18B. Chrysene (218-01-9)	X			<10						1	ug/l				
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X			<10						1	ug/l				
20B. 1,2-Dichloro-benzene (95-50-1)	X			<10						1	ug/l				
21B. 1,3-Dichloro-benzene (541-73-1)	X			<10						1	ug/l				

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612663	05

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)	X			<10						1	ug/l				
23B. 3,3-Dichlorobenzidine (91-94-1)	X			<20						1	ug/l				
24B. Diethyl Phthalate (84-66-2)	X			<10						1	ug/l				
25B. Dimethyl Phthalate (131-11-3)	X			<10						1	ug/l				
26B. Di-N-Butyl Phthalate (84-74-2)	X			<10						1	ug/l				
27B. 2,4-Dinitrotoluene (121-14-2)	X			<20						1	ug/l				
28B. 2,6-Dinitrotoluene (606-20-2)	X			<20						1	ug/l				
29B. Di-N-OctylPhthalate (117-84-0)	X			<10						1	ug/l				
30B. 1,2-Diphenyl-hydrazine *(as Azobenzene)* (122-66-7)	X			<10						1	ug/l				
31B. Fluoranthene (206-44-0)	X			<10						1	ug/l				
32B. Fluorene (86-73-7)	X			<10						1	ug/l				
33B. Hexachlorobenzene (118-74-1)	X			<10						1	ug/l				
34B. Hexachlorobutadiene (87-68-3)	X			<10						1	ug/l				
35B. Hexachlorocyclo-pentadiene (77-47-4)	X			<10						1	ug/l				
36B. Hexachloroethane (67-72-1)	X			<10						1	ug/l				
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	X			<10						1	ug/l				
38B. Isophorone (78-59-1)	X			<10						1	ug/l				
39B. Naphthalene (91-20-3)	X			<10						1	ug/l				
40B. Nitrobenzene (98-95-3)	X			<10						1	ug/l				
41B. N-Nitrosodimethylamine (62-75-9)	X			<10						1	ug/l				
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X			<10						1	ug/l				

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6	X			<10						1	ug/l				
44B. Phenanthrene (85-01-8)	X			<10						1	ug/l				
45B. Pyrene (129-00-0)	X			<10						1	ug/l				
46B. 1,2,4-Trichlorobenzene (120-82-1)	X			<10						1	ug/l				
1P. Aldrin (309-00-2)															
2P. α-BHC (319-84-6)															
3P. β-BHC (319-85-7)															
4P. γ-BHC (58-89-9)															
5P. δ-BHC (319-86-8)															
6P. Chlordane (57-74-9)															
7P. 4,4'-DDT (50-29-3)															
8P. 4,4'-DDE (72-55-9)															
9P. 4,4'-DDD (72-54-8)															
10P. Dieldrin (60-57-1)															
11P. α-Endosulfan (115-29-7)															
12P. β-Endosulfan (115-29-7)															
13P. Endosulfan Sulfate (1031-07-8)															
14P. Endrin (72-20-8)															
15P. Endrin Aldehyde (7421-93-4)															
16P. Heptachlor (76-44-8)															

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CONTINUED FROM PAGE V-8

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612663	05

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)															
18P. PCB-1242 (53469-21-9)	X			<1.0						1	ug/l				
19P. PCB-1254 (11097-69-1)	X			<1.0						1	ug/l				
20P. PCB-1221 (11104-28-2)	X			<1.0						1	ug/l				
21P. PCB-1232 (11141-16-5)	X			<1.0						1	ug/l				
22P. PCB-1248 (12672-29-6)	X			<1.0						1	ug/l				
23P. PCB-1260 (11096-82-5)	X			<1.0						1	ug/l				
24P. PCB-1016 (12674-11-2)	X			<1.0						1	ug/l				
25P. Toxaphene (8001-35-2)															

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item I of Form 1)*
GAD000612663

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

Georgia Power – Plant Hammond 2016 Ash Pond 2 Emergency Overflow

OUTFALL NO. 03

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS				(1) CONCEN-TRATION	(2) MASS	
a. Biochemical Oxygen Demand (BOD)	< 2.0						1	mg/l		<8.0		1
b. Chemical Oxygen Demand (COD)	< 10.0						1	mg/l		28.0		1
c. Total Organic Carbon (TOC)	< 1.0						1	mg/l		5.5		1
d. Total Suspended Solids (TSS)	43.9						1	mg/l		14		1
e. Ammonia *(as N)*	0.18						1	mg/l		0.12		1
f. Flow	VALUE 15,000*		VALUE		VALUE			gpm		VALUE		
g. Temperature *(winter)*	8.5		VALUE		VALUE		1	°C		VALUE		
h. Temperature *(summer)*	ambient		VALUE		VALUE			°C				
i. pH	6.29	6.29	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data for an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS	(1) CONCEN-TRATION	(2) MASS				(1) CONCEN-TRATION	(2) MASS	
a. Bromide (24959-67-9)			1.3						1	mg/l		<1.0		1
b. Chlorine, Total Residual			< 0.1						1	mg/l		0.1		1
c. Color			< 40						1	PCU		80		1
d. Fecal Coliform			6						1	col/100 ml		390		1
e. Fluoride (16984-48-8)			0.8						1	mg/l		<0.10		1
f. Nitrate-Nitrite *(as N)*			0.23						1	mg/l		0.38		1

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

***Estimated flow following 24hr 100-yr storm**

CONTINUE ON REVERSE

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SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
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Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

Georgia Power – Plant Hammond 2016 Ash Pond 4 Emergency Overflow

OUTFALL NO. 04

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCEN-TRATION	b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	< 2.0						1	mg/l		<8.0		1
b. Chemical Oxygen Demand (COD)	< 10.0						1	mg/l		28.0		1
c. Total Organic Carbon (TOC)	< 1.0						1	mg/l		5.5		1
d. Total Suspended Solids (TSS)	43.9						1	mg/l		14		1
e. Ammonia *(as N)*	0.18						1	mg/l		0.12		1
f. Flow	VALUE 15,000		VALUE		VALUE			gpm		VALUE		
g. Temperature *(winter)*	8.5		VALUE		VALUE		1	°C		VALUE		
h. Temperature *(summer)*	ambient		VALUE		VALUE			°C				
i. pH	6.29	6.29	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data for an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO. OF ANAL-YESES	4. UNITS a. CONCEN-TRATION	b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANAL-YSES
a. Bromide (24959-67-9)			1.3						1	mg/l		<1.0		1
b. Chlorine, Total Residual			< 0.1						1	mg/l		0.1		1
c. Color			< 40						1	PCU		80		1
d. Fecal Coliform			6						1	col/100 ml		390		1
e. Fluoride (16984-48-8)			0.8						1	mg/l		<0.10		1
f. Nitrate-Nitrite *(as N)*			0.23						1	mg/l		0.38		1

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

***Estimated flow following 24hr 100-yr storm**

CONTINUE ON REVERSE

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item I of Form I)*
GAD000612663

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

Georgia Power – Plant Hammond 2016 Ash Pond 3 Emergency Overflow

OUTFALL NO. 10

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCEN-TRATION	b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	< 2.0						1	mg/l		<8.0		1
b. Chemical Oxygen Demand (COD)	< 10.0						1	mg/l		28.0		1
c. Total Organic Carbon (TOC)	< 1.0						1	mg/l		5.5		1
d. Total Suspended Solids (TSS)	43.9						1	mg/l		14.0		1
e. Ammonia *(as N)*	0.18						1	mg/l		0.12		1
f. Flow	VALUE 15,000		VALUE		VALUE			gpm		VALUE		
g. Temperature *(winter)*	8.5		VALUE		VALUE		1	°C		VALUE		
h. Temperature *(summer)*	ambient		VALUE		VALUE			°C				
i. pH	6.29	6.29	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data for an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	b. Believed Absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCEN-TRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	(2) MASS	d. NO. OF ANAL-YESES	4. UNITS a. CONCEN-TRATION	b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION	(2) MASS	b. NO. OF ANAL-YSES
a. Bromide (24959-67-9)			1.3						1	mg/l		<1.0		1
b. Chlorine, Total Residual			< 0.1						1	mg/l		0.1		
c. Color			< 40						1	PCU		80		
d. Fecal Coliform			6						1	col/100 ml		390		1
e. Fluoride (16984-48-8)			0.8						1	mg/l		<.10		1
f. Nitrate-Nitrite *(as N)*			0.23						1	mg/l		0.38		1

NOTE - Effluent characteristics based upon a storm water dilution factor of 2.1

***Estimated flow following 24hr 100-yr storm**

CONTINUE ON REVERSE

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#28

Shell, Karrie-Jo

From: Dickson, Audra <Audra.Dickson@dnr.ga.gov>
Sent: Wednesday, July 26, 2017 6:59 AM
To: Shell, Karrie-Jo
Cc: Davis, Molly
Subject: Plant Hammond

Karrie-Jo,

Would it be possible to get a copy of the Georgia Power Plant Hammond permit files from way back when when EPA issued their permit?

Get Outlook for Android

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#29

Armstrong, Kathy

From: Davis, Molly
Sent: Wednesday, August 23, 2017 12:42 PM
To: Armstrong, Kathy
Subject: FW: FW: EPA preliminary comments on the draft permit for Plant Hammond

Hopefully this is a duplicate but if not here is another email

From: Davis, Molly
Sent: Wednesday, March 15, 2017 8:02 AM
To: Diaz, Denisse <Diaz.Denisse@epa.gov>
Subject: RE: FW: EPA preliminary comments on the draft permit for Plant Hammond

I already took care of it!

From: Diaz, Denisse
Sent: Wednesday, March 15, 2017 7:55 AM
To: Shell, Karrie-Jo <Shell.Karrie-Jo@epa.gov>; Davis, Molly <Davis.Molly@epa.gov>
Subject: FW: FW: EPA preliminary comments on the draft permit for Plant Hammond

FYI. Please make sure we include this in RAMS.

From: Diaz, Denisse
Sent: Wednesday, March 15, 2017 7:54 AM
To: jeff.larson@dnr.ga.gov; 'Audra.Dickson@dnr.ga.gov' <Audra.Dickson@dnr.ga.gov>
Subject: FW: FW: EPA preliminary comments on the draft permit for Plant Hammond

Dear Jeff and Audra:

This email transmits EPA Region 4's comments and recommendations on the draft permit for the Georgia Power Plant Hammond NPDES permit. It is my understanding that Karrie -Jo Shell discussed these comments with Audra a few days ago.

1. We recommend the permit require instream monitoring up- and down-stream of the facility's main outfall as soon as possible after the effective date of the permit. The monitoring should occur before dewatering commences, and the results should be used to revise the Reasonable Potential Analysis, as needed, to include appropriate water quality-based effluent limits. Subsequent instream monitoring should be done sometime during the dewatering operation. This will provide data to demonstrate/verify that the dewatering event is not causing or contributing to ta violation of instream water quality standards.
2. The permit should specify the analytical test method numbers to be used for compliance. For example, the most sensitive method for mercury is EPA Method 1631E. Likewise, for other metals, EPA Method 245.7 is appropriate.
3. The permit should define the term "dewatering activity". For example, clarify how to differentiate between a dewatering activity from a typical discharge or drawdown event.
4. Sampling to be performed during the dewatering operations should be a least weekly for the first few weeks and more often as the ash pond levels drops closer to the ash layer. This will ensure that instream water quality

standards are not exceeded. Parameters should include pollutants common to ash pond discharges, such as: turbidity, TDS, Cu, Se, As, Hg, Cr, Pb, Cd, Zn, Ni, and hardness.

5. To ensure the integrity of the pond structure is not jeopardized if the pond water is drawn down too quickly, the permit should specify the drawdown rate during dewatering operations. We recommend you confer with Georgia's Dam Safety Department to determine the maximum draw down rate to ensure stability during releases.
6. For the emergency ash pond outfalls (003, 004, &10), the permit should specify the rainfall event for which the discharges will be authorized. The permit application states that the emergency ponds are designed to retain the 100Y24H storm, so I recommend the permit only allow discharges from these ponds during that storm events. Monitoring during discharge should include metals/pollutants commonly found in ash pond effluents: TDS, Cu, Se, As, Hg, Cr, Pb, Cd, Zn, Ni, and hardness.
7. For clarification, the effluent limitation tables for outfalls 003, 004 and 010 should be revised by replacing "2/month" with "See footnote 1" for the "Measurement Frequency". Additionally, sampling during an emergency discharge should be at least once daily during the first hour of the discharge (or some other specified time frame).
8. The permit should require the permittee to measure flow for internal outfall 1N (FGD wastewater) at least as frequently as the other parameters (i.e., weekly).
9. For compliance purposes, the permit should specify how flow will be estimated for outfalls 01B, 01I (chemical metal cleaning wastes), 03, 04 and 10. Likewise, for outfalls 001 and 01A, the permit should specify how flow will be calculated.
10. The permit requires the permittee to perform routine inspections of the dike walls/berm; however, because there may be seeps which occur below the dike berms, we recommend the plan also require inspections for seepages from the ash pond which may be hydrologically connected to waters of the State. In which case, such discharges would need to be covered under an NPDES permit.

My staff and I are available to schedule a call if you wish to have a discussion or have any questions. Once the permit is finalized, please, provide a copy of the proposed final permit for EPA's review.

Best Regards,

Denisse

Denisse D. Diaz, Chief
NPDES Permitting and Enforcement Branch
Water Protection Division
(404) 562-9610

From: Dickson, Audra [mailto:Audra.Dickson@dnr.ga.gov]
Sent: Tuesday, March 14, 2017 2:19 PM
To: Shell, Karrie-Jo <Shell.Karrie-Jo@epa.gov>
Subject: Re: FW: EPA preliminary comments on the draft permit for Plant Hammond

We are not planning on sending a revised permit. You can send the comments to me or Jeff.

Thank audra

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On Tue, Mar 14, 2017 at 1:41 PM -0400, "Shell, Karrie-Jo" <Shell.Karrie-Jo@epa.gov> wrote:

Do you plan to send us a revised permit based on our comments? If not, I can have my Branch Chef forward these comments to Jeff Larson (?)

Karrie-Jo Robinson-Shell, P.E.
Environmental Engineer
US EPA Region 4
Water Protection Division
61 Forsyth Street
Atlanta, GA 30303
(404) 562-9308

From: Shell, Karrie-Jo
Sent: Tuesday, February 28, 2017 1:16 PM
To: 'Dickson, Audra' <Audra.Dickson@dnr.ga.gov>
Cc: Staples, Bridget <Staples.Bridget@epa.gov>; Davis, Molly <Davis.Molly@epa.gov>; Zimmer, Andrea <Zimmer.Andrea@epa.gov>; Diaz, Denisse <Diaz.Denisse@epa.gov>
Subject: EPA preliminary comments on the draft permit for Plant Hammond

Audra,

EPA received the draft permit for Plant Hammond via email on February 17th. This facility is a coal-fired power plant with an FGD scrubber. Future plans include dewatering the current ash ponds. There two receiving waterbodies – the Coosa River and Smith Cabin Creek, and the permit reflects implementation of GA's TMDLs for dissolved oxygen and PCBs for the Coosa River.

The following are preliminary comments on the draft permit. Final comments will most likely be transmitted via email from Denisse Diaz before the end of our 30 day review period.

1. The permit should require instream monitoring up- and down-stream of the facility's main outfall as soon as possible after the effective date of the permit, and the results should be used to revise the Reasonable Potential Analysis, as needed, to include appropriate water quality-based effluent limits.
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5. To ensure the integrity of the pond structure is not jeopardized if the pond water is drawn down too quickly, the permit should specify the drawdown rate during dewatering operations.

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Karrie-Jo Robinson-Shell, P.E.
Environmental Engineer
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Water Protection Division
61 Forsyth Street
Atlanta, GA 30303
(404) 562-9308

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Armstrong, Kathy

From: Davis, Molly
Sent: Wednesday, August 23, 2017 12:41 PM
To: Armstrong, Kathy
Subject: FW: End Fish Deaths at Power Plant on Coosa

Here is an email I found regarding the Plant Hammond FOIA. You may already have it but I thought I would check my emails too.

From: Houda, Tara
Sent: Monday, February 23, 2015 9:05 AM
To: Davis, Molly <Davis.Molly@epa.gov>
Subject: FW: End Fish Deaths at Power Plant on Coosa

Just an FYI for the permitting section...

Sent: Friday, February 20, 2015 5:14 PM
To: Houda, Tara
Subject: FW: End Fish Deaths at Power Plant on Coosa

From: gean@gwf.org
Date: Wed, 11 Feb 2015 15:42:19 -0600
Subject: End Fish Deaths at Power Plant on Coosa

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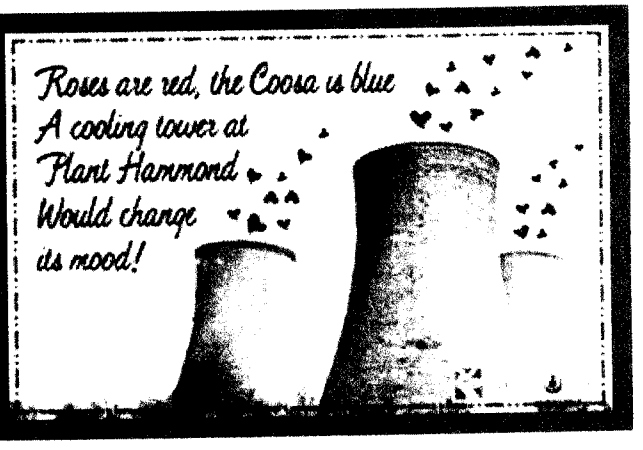
Protect Georgia Action Alert

End Fish Deaths at Power Plant on Coosa



Each year thousands of fish die when they are sucked into pipes at Plant Hammond, a coal-fired power plant on the Coosa River near Rome. These unnecessary deaths can be ended if a cooling tower is installed at the plant.

Problem: Unfortunately, Georgia's Environmental Protection Division (EPD) and Georgia Power, which operates Plant Hammond, have been slow to respond to this problem. As early as 2004, EPD recommended that a cooling tower be built, but since then there has been no action.

Solution: EPD is currently reviewing Plant Hammond's pollution control permits and through these permits, it can force Georgia Power to install a cooling tower.

Action Needed: As a Valentine's Day treat for the Coosa, send a message to EPD and Georgia Power and tell them to show the Coosa some love, and give it a cooling tower at Plant Hammond.

Deadline for Responding: Please take action by Valentine's Day Saturday, Feb. 14, 2015

Act Now

Take action by February 14.

This alert supported by
Altamaha Riverkeeper
Broad River Watershed Association
Center for a Sustainable Coast
Chattahoochee Riverkeeper
Citizens for Progressive Transit
Coosa River Basin Initiative
Flint Riverkeeper
Georgia Canoeing Association
Georgia Forest Watch
Georgia River Network
Izaak Walton League of America - Greater Atlanta Chapter
Mothers & Others for Clean Air
Ogeechee Riverkeeper
One Hundred Miles
Savannah Riverkeeper
Sierra Club - Georgia Chapter
Southern Alliance for Clean Energy
U.S. Green Building Council - Georgia Chapter

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#31

Armstrong, Kathy

From: Davis, Molly
Sent: Wednesday, August 23, 2017 12:41 PM
To: Armstrong, Kathy
Subject: FW: EPA preliminary comments on the draft permit for Plant Hammond

Here is an email I found regarding the Plant Hammond FOIA. You may already have it but I thought I would check my emails too.

From: Shell, Karrie-Jo
Sent: Tuesday, February 28, 2017 1:16 PM
To: Dickson, Audra <Audra.Dickson@dnr.ga.gov>
Cc: Staples, Bridget <Staples.Bridget@epa.gov>; Davis, Molly <Davis.Molly@epa.gov>; Zimmer, Andrea <Zimmer.Andrea@epa.gov>; Diaz, Denisse <Diaz.Denisse@epa.gov>
Subject: EPA preliminary comments on the draft permit for Plant Hammond

Audra,

EPA received the draft permit for Plant Hammond via email on February 17th. This facility is a coal-fired power plant with an FGD scrubber. Future plans include dewatering the current ash ponds. There two receiving waterbodies – the Coosa River and Smith Cabin Creek, and the permit reflects implementation of GA's TMDLs for dissolved oxygen and PCBs for the Coosa River.

The following are preliminary comments on the draft permit. Final comments will most likely be transmitted via email from Denisse Diaz before the end of our 30 day review period.

1. The permit should require instream monitoring up- and down-stream of the facility's main outfall as soon as possible after the effective date of the permit, and the results should be used to revise the Reasonable Potential Analysis, as needed, to include appropriate water quality-based effluent limits.
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61 Forsyth Street
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Sent: Wednesday, August 23, 2017 12:41 PM
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Atlanta, GA 30303
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Armstrong, Kathy

From: Davis, Molly
Sent: Wednesday, August 23, 2017 12:40 PM
To: Armstrong, Kathy
Subject: FW: EPA preliminary comments on the draft permit for Plant Hammond

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Sent: Tuesday, February 28, 2017 1:16 PM
To: Dickson, Audra <Audra.Dickson@dnr.ga.gov>
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61 Forsyth Street
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#32

Shell, Karrie-Jo

From: Davis, Molly
Sent: Wednesday, July 19, 2017 2:36 PM
To: Staples, Bridget; Zimmer, Andrea
Cc: Shell, Karrie-Jo
Subject: FW: Request of Information for a FL DEP- NPDES permit modification

Please see Audra's message below regarding a FDEP Gulf Power permit. Please send any insight to KJ and copy me.

From: Dickson, Audra [mailto:Audra.Dickson@dnr.ga.gov]
Sent: Wednesday, July 19, 2017 2:30 PM
To: Davis, Molly <Davis.Molly@epa.gov>; Shell, Karrie-Jo <Shell.Karrie-Jo@epa.gov>
Subject: Request of Information for a FL DEP- NPDES permit modification

Molly,

I received a comment for GA Power's Plant Mitchell permit and was hoping you could shed some light on the events and timeline for EPA Region IVs involvement. The commentor stated the following "

EPA Region IV has made clear that ash pond dewatering activities must be treated as a major modifications. For example, last year, Gulf Power sought a minor modification of its NPDES permit from the Florida Department of Environmental Protection (Florida "DEP") to authorize changes to the Scholz Electric Generating Plant's coal ash disposal and wastewater treatment practices in order to facilitate closure of its coal ash ponds at its Pensacola Florida power plant. Upon notice of the proposed "minor revision" of Gulf Power's NPDES permit to authorize such changes, EPA Region IV instructed the Florida DEP that EPA would consider Gulf Power's request as a "major modification" of the permit, because the utility's proposed alterations to its coal ash disposal and wastewater treatment practices did not fit the specifically enumerated situations qualifying for a "minor modification" of the plant's NPDES permit under 40 C.F.R. § 122.63._In doing so, EPA Region IV *rejected* Florida DEP's August 2016 determination that Gulf Power's proposed alterations to its coal ash disposal and wastewater treatment practices, intended to facilitate ash pond closure, could be accomplished by a "minor modification" of the Scholz Plant's NPDES permit. Rather, because the changes entailed alterations, additions and changes to waste disposal and wastewater treatment practices at Plant Scholz, the NPDES permit must undergo major permit modification subject to full public notice and comment prior to authorizing pollutant discharges under that permit."

My review of the information is the following: This permit was already issued and effective and FL DEP was not in the process of renewing the entire NPDES permit and the sequence of events above occurred prior to the promulgation of the recently revised Steam Electric Rule. Are my conclusions accurate?

Any light you can shed on the situation would be most helpful. thanks

Best Regards,

Audra Dickson
Industrial Permitting Manager
2 Martin Luther King Jr. Drive Suite 1152E
Atlanta, GA 30334
Phone: 404-463-4934

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION