Chris M. Hobson
Vice President
Environmental Affairs

:0221
241 Ralph McGill Boulevard NE
Atlanta, Georgia 30308-3374

Tel 404.506.7778
Fax 404.506.1499

GA0035564

RECEIVED
AUG 7 2001
GEORGIA EPD WATER PROTECTION BRANCH
PERMITTING, COMPLIANCE AND ENFORCEMENT PROGRAM

GEORGIA POWER
A SOUTHERN COMPANY

RECEIVED
AUG 1 2001
ENVIRONMENTAL PROTECTION
WATER PROTECTION

July 27, 2001

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

RECEIVED
JUL 31 2001
ENVIRONMENTAL PROTECTION DIVISION
DIRECTOR'S OFFICE

RE: Plant Scherer
NPDES Permit No. GA0035564
Application for Permit Renewal

Dear Mr. Reheis:

Attached is the NPDES permit renewal application package for the Georgia Power Company Plant Scherer facility located in Juliette, 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 map showing the locations of process wastewater discharges and comingled stormwater discharges.

3. A USGS 7.5 minute topographic map showing the facility location.

4. A segment of the USGS 7.5 minute topographic map showing the locations of the two primary outfalls, outfall numbers 01 and 04.

5. A supplemental map showing the routing of the plant final discharge pipe for outfall number 01 and the location of the River Intake Pump Seal Water Discharge, outfall number 11.

6. An evaluation demonstrating that the Plant Scherer ash treatment systems have adequate storage volume to meet EPA's co-treatment guidelines through the next permit term.

7. Copies of correspondence related to changes approved since issuance of the last permit, which include the 1998 revision to the biocide BMP and the 2000 revision to the Intake Backwash.

8. Lake Juliette water quality information.

9. A revised Best Mangement Plan, dated July 26, 2001, for Macrofouling and Biofouling Control, which supercedes the revision dated August 26, 1998, which was approved by EPD December 30, 1998. This update includes minor revisions which more accurately describe the process.

With this application, Georgia Power requests EPD consideration of a change in the monitoring of outfall number 04, the Service Water Final Discharge. This discharge was permitted in Part I.A.6 of the current permit apart from EPA's Steam Electric Effluent Guidelines, with a monitoring frequency of once per week. Lake Juliette, the receiving waters for this discharge, has experienced exemplary water quality throughout the history of plant operation, with typical characteristics discussed in the attached summary from GPC's annual lake water quality studies (attachment 8). We believe a monitoring frequency of once per quarter is warranted, with a discharge monitoring point not more than 50 feet from the discharge pipe outlet, one meter below the lake surface.

If you need additional information or have questions regarding this matter, please contact Bill Evans at 404-506-7031.

Sincerely,

C. M. Hobson

xc: Mike Creason, 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	T/A	C
		F G A D 0 0 0 6 1 2 7 9 6		D

LABEL ITEMS		GENERAL INSTRUCTIONS
I. EPA I.D. NUMBER III. FACILITY NAME V. FACILITY MAILING ADDRESS VI. FACILITY LOCATION	PLEASE PLACE LABEL IN THIS SPACE	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)		X		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)		X	
		16	17	18			19	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		X	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)		X	
		22	23	24			25	26	27
E.	Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)		X		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)		X	
		28	29	30			31	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)		X		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)		X	
		34	35	36			37	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)		X		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)		X	
		40	41	42			43	44	45

III. NAME OF FACILITY

C 1 SKIP PLANT SCHERER

IV. FACILITY CONTACT

A. NAME & TITLE (*last, first, & title*)	B. PHONE (*area code & no.*)		
C 2 HOBSON, C. M., VICE PRES., ENVIR. AFFAIRS	404	506	7778

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

C 3 241 RALPH MCGILL BLVD., N.E.

B. CITY OR TOWN	C. STATE	D. ZIP CODE
C 4 ATLANTA	GA	30308

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

C 5 10986 HIGHWAY 87

B. COUNTY NAME

MONROE

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE
C 6 JULIETTE	GA	31046	N/A

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, 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	GA0053364	D. PSD *(Air Emissions from Proposed Sources)*	C 9	T P	N/A
B. UIC *(Underground Injection of Fluids)*	C 9	T U	N/A	E. OTHER *(specify)*	C 9		N/A (specify)
C. RCRA *(Hazardous Wastes)*	C 9	T R	N/A	E. OTHER *(specify)*	C 9		N/A (specify)

XI. MAP

Attach to this application a topgraphic map of the area extending to at least one mile beyond property bounderies. 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.

* Plant Scherer is jointly owned by: Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, Florida Power and Light, Jacksonville Electric Authority, Gulf Power Company, and City of Dalton.

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
C. M. Hobson, Vice Pres., Envir. Affairs	CMHobson	7/27/01

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*)
GAD000612796

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	33	04	51	83	46	36	Ocmulgee River via pipeline
02	33	04	18	83	47	45	Ocmulgee River via Berry Creek
04,05,06, 07,08,09, 10,12,13, 14	33	03	14	83	48	22	Lake Juliette - Service Water Storage
11	33	03	51	83	44	21	Ocmulgee 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	Final Plant Discharge Stormwater	14,052 gpm	25,000 gpm (maximum)	2F **	4A
01A	Cooling Tower Blowdown Units 1-4	7,470 gpm	33,000 gpm (maximum)	2F **	4A
01B	Ash Transport Bleedoff	6,582 gpm	19,753 gpm (maximum)		4A
01C	Unit 3 Cooling Tower Overflow and Basin Drain	*	15,820 gpm (maximum)	2F **	4A
01D	Unit 4 Cooling Tower Overflow and Basin Drain	*	15,820 gpm (maximum)	2F **	4A
01E	NPDES Basin Minimum Flow	*	2,238 gpm (maximum)	2F **	4A
02	Detention Pond (I-pond) Stormwater	222 gpm	22,266 gpm (10 yr - 24 hr rainfall event)		4A
02A	Detention Pond Bottom Drain	*			4A
02B	Fire Training Runoff	*			4A
02C	NPDES Basin Emergency Overflow Stormwater	*		2F **	4A
	* Intermittent or emergency Discharge				
	** During periods of Chlorination				

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 I of Form 1*)
GAD000612796

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	
03	Ash Transport Water Stormwater	32,381 gpm	50,000 gpm (maximum)	4C	4A
03A	No. 2 Sewage Treatment Plant	12 gpm	120 gpm (maximum)	3A, 2F	4C, 4A
03B	No. 4 Sewage Treatment Plant	1 gpm	17 gpm (maximum)	3A, 2F	4C, 4A
03C	No. 1 Sewage Treatment Plant	0 gpm	30 gpm (maximum)	3A,, 2F	4C, 4A
03D	Coal Pile Runoff Basin	693 gpm	5,300 gpm (maximum)	4C	4A
03E	Wastewater Basins - Units 1-4	12,400 gpm	15,000 gpm (maximum)	4C	4A
03F	Low Volume Wastes - Units 1-4	5,388 gpm	8,600 gpm (maximum)	4C	4A
03G	Tractor Garage	1 gpm	500 gpm (maximum)	4C	4A
03H	Coal Pile Runoff	260 gpm	12,800 gpm (maximum)	4C	4A
03I	Chemical Cleaning Wastes	*		2K, 2C	4C, 4A
04	Service Water Final Discharge	1,527 gpm	79,200 gpm (maximum)	2F **	4A
04A	Service Water Return	*	79,200 gpm (maximum)	2F **	4A
04B	Service Water Minimum Flow	1,527 gpm	66,000 gpm (maximum)	2F **	4A
05	Unit 1 Cooling Tower Overflow and Basin Drain	*	15,820 gpm (maximum)	2F **	4A
06	Unit 2 Cooling Tower Overflow and Basin Drain	*	15,820 gpm (maximum)	2F **	4A

OFFICIAL USE ONLY (effluent guidelines sub-categories)

 CONTINUE ON PAGE 1c

Please print or type in the unshaded areas only.

EPA I.D. (*copy from Item 1 of Form 1*)
GAD000612796

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	
07	Settling Pond Emergency Overflow Stormwater	*	57,000 gpm (maximum)	1U, 2K	4A
08	Employee Car Wash Stormwater	7 gpm	325 gpm (maximum)		4A
09	Service Water Pump Seal Water	65 gpm	78 gpm (maximum)		4A
10	Service Water Screen Backwash	510 gpm	765 gpm (maximum)		4A
11	River Intake Pump Seal Water	100 gpm	100 gpm (maximum)		4A
12	Condensate, Filtered Water, and Potable Water Tank Overflows Stormwater	*	2,536 gpm (maximum)	2F**	4A
13	Units 1-2 Wastewater Basin Emergency Overflow	*	4,300 gpm (maximum)		4A
14	Units 3-4 Wastewater Basin Emergency Overflow	*	4,300 gpm (maximum)		4A

OFFICIAL USE ONLY (effluent guidelines sub-categories)

 CONTINUE ON PAGE 2

CONTINUED FROM PAGE 1c

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-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)
	See attachment 1 for intermittent discharges							
	Analyses on overflows and emergency discharges are submitted with the quarterly Operation Monitoring Reports							

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)*

GAD000612796

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

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 PAGE 3

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 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, 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 designed 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.)
C. M. Hobson , Vice President, Environmental Affairs	404-506-7778
C. SIGNATURE CMHobson	D. DATE SIGNED 7/27/01

Outfalls 01C, 01D, 05, and 06 – Cooling Tower Overflow / Basin Drain

Overflows from cooling towers may occur infrequently during equipment malfunction or emergency conditions. The estimated overflow discharge (15580 gpm) is the design make-up water flow. Draining of the cooling tower basins may occur during unit outages. The frequency is dependent on unit operation and is estimated at twice per year.

Outfall 01E - NPDES Basin Minimum Flow

NPDES system minimum flows typically occur during periods of unit outages or cooling tower biocide treatment due to reduced cooling tower blow-down. The effluent is service water with a maximum discharge of 2,238 gpm.

Outfall 02A - I-Pond Bottom Drain

Discharges from the Detention (I-Pond) through the bottom drain could occur if necessary to perform dike, dam, or pond maintenance.

Outfall 02B - Fire Training Runoff

Discharges of filtered water used for fire training purposes may occur during the year due to classes conducted on site.

Outfall 02C - NPDES Basin Emergency Overflow

The normal discharge for the NPDES basin is through outfall 01. In the event of equipment malfunctions or emergency conditions, the basin may discharge though this outfall. Past events have been infrequent and of short duration.

Outfall 03I - Chemical Cleaning Wastes

Boiler and Turbine cleaning wastes are usually treated with sodium hydroxide or lime to a pH sufficient to precipitate the iron and copper suspended in solution. The water is then pumped to the ash pond via the wastewater basin. Boiler cleaning is infrequent and turbine cleaning is anticipated to be performed once per year. Rainwater is also pumped out of the chemical cleaning basin into the Units 1 & 2 wastewater basin.

Outfall 07 - Settling Pond Emergency Overflow

The normal settling pond discharge is through the ash transport bleed-off system. The capacity of the bleed-off was approximately doubled in 1997 by addition of an 8" bypass around the existing regulator valve. The addition was performed in order to reduce the occurrence of settling pond overflows. Discharges from the emergency overflow should only occur during periods of equipment malfunction, heavy rainfall, or emergency conditions. Overflow volume is variable with an estimated maximum of 57,000 gpm.

Outfall 12 - Condensate/Filtered Water/Potable Water Tank Overflows to Lake Juliette (Service Water Pond)

Storage tanks could overflow during abnormal operations. These infrequent overflows would consist of condensate, demineralized water, filtered water, or potable water. An overflow is typically less than 100 gpm and short in duration.

Outfall 13 and 14 - Waste Water Basin Emergency Overflow

Discharges could occur from equipment malfunctions or emergency conditions. An emergency portable pump is in standby mode to reduce the likelihood of an overflow.

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

EPA I.D. NUMBER *(copy from Item I of Form 1)* GAD000612796

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

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

OUTFALL NO. 01

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 (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG. VALUE (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	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	<8	<1063					1	mg/l	lb/day	<8		1
b. Chemical Oxygen Demand (COD)	17	2259					1	mg/l	lb/day	12		1
c. Total Organic Carbon (TOC)	5	665					1	mg/l	lb/day	2		1
d. Total Suspended Solids (TSS)	<5	<665					1	mg/l	lb/day	12		1
e. Ammonia *(as N)*	<0.1	<13.3					1	mg/l	lb/day	<0.1		1
f. Flow	VALUE 11,075		VALUE		VALUE 25,000 max		8	gpm		VALUE		
g. Temperature *(winter)*	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature *(summer)*	VALUE 25.2		VALUE		VALUE		8	°C		VALUE 24.1		8
i. pH	MINIMUM 8.50	MAXIMUM 8.58	MINIMUM	MAXIMUM			4	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	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG. VALUE (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	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Bromide (24959-67-9)	x		0.18	23.9					1	mg/l	lb/day	<0.1		1
b. Chlorine, Total Residual	x		0						4	mg/l	lb/day	0		4
c. Color	x		10						1	pcu		10		1
d. Fecal Coliform	x		2						1	col/100ml		84		1
e. Fluoride (16984-48-8)	x		1.0	132.9					1	mg/l	lb/day	0.2		1
f. Nitrate-Nitrite *(as N)*	x		0.7	93.0					1	mg/l	lb/day	0.5		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)	x		0.6	79.7					1	mg/l	lb/day	0.6		1
h. Oil and Grease		x	<6	<797					1	mg/l	lb/day	<6		1
i. Phosphorus (as P), Total (7723-14-0)	x		0.05	6.6					1	mg/l	lb/day	0.04		1
j. Radioactivity														
(1) Alpha, Total														
(2) Beta, Total														
(3) Radium, Total														
(4) Radium 226, Total														
k. Sulfate (as SO_4) (14808-79-8)	x		155	20,600					1	mg/l	lb/day	10		1
l. Sulfide (as SO_3) (14265-45-3)		x	<0.2	<26.6					1	mg/l	lb/day	<0.2		1
m. Sulfite (as SO_3) (14265-45-3)		x	<2	<266					1	mg/l	lb/day	<2		1
n. Surfactants		x	<0.04	<5.3					1	mg/l	lb/day	<0.04		1
o. Aluminum, Total (7440-39-3)	x		0.4	53					1	mg/l	lb/day	0.4		1
p. Barium, Total (7440-39-3)	x		0.15	19.9					1	mg/l	lb/day	0.02		1
q. Boron, Total (7440-42-8)	x		0.98	130.2					1	mg/l	lb/day	0.04		1
r. Cobalt, Total (7440-48-4)		x	<0.04	<5.3					1	mg/l	lb/day	<0.04		1
s. Iron, Total (7439-89-6)		x	<0.04	<5.3					1	mg/l	lb/day	0.68		1
t. Magnesium, Total (7439-95-4)	x		5.5	731					1	mg/l	lb/day	1.6		1
u. Molybdenum, Total (7439-98-7)	x		0.06	8.0					1	mg/l	lb/day	<0.04		1
v. Manganese, Total (7439-96-5)		x	<0.04	<5.3					1	mg/l	lb/day	0.08		1
w. Tin, Total (7440-31-5)		x	<0.04	<5.3					1	mg/l	lb/day	<0.04		1
x. Titanium, Total (7440-32-6)		x	<0.1	<13.3					1	mg/l	lb/day	<0.1		1

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Appproval expires 7-31-88

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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 of at least one analysis for that 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		x	<0.05	<6.6					1	mg/l	lb/day	<0.05		1
2M. Arsenic, Total (7440-38-2)	x		x	<0.03	<4.0					1	mg/l	lb/day	<0.03		1
3M. Beryllium, Total (7440-41-7)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
4M. Cadmium, Total (7440-43-9)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
5M. Chromium Total (7440-47-3)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
6M. Copper, Total (7440-50-8)	x	x		0.02	2.7					1	mg/l	lb/day	<0.02		1
7M. Lead, Total (7439-92-1)	x		x	<0.025	<3.3					1	mg/l	lb/day	<0.025		1
8M. Mercury, Total (7439-97-6)	x		x	<0.0005	<0.07					1	mg/l	lb/day	<0.0005		1
9M. Nickel, Total (7440-02-0)	x		x	<0.02	<2.7					1	mg/l	lb/day	<0.02		1
10M. Selenium, Total (7782-49-2)	x		x	<0.04	<5.3					1	mg/l	lb/day	<0.04		1
11M. Silver, Total (7440-22-4)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
12M. Thallium, Total (7440-28-0)	x		x	<0.05	<6.6					1	mg/l	lb/day	<0.05		1
13M. Zinc, Total (7440-66-6)	x		x	<0.02	<2.7					1	mg/l	lb/day	<0.02		1
14M. Cyanide, Total (57-12-5)	x		x	<0.02	<2.7					1	mg/l	lb/day	<0.02		1
15M. Phenols, Total	x		x	<0.05	<6.6					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. 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	
METALS, CYANIDE, AND TOTAL PHENOLS															
1V. Acrolein (107-02-8)	x		x	<0.05	<6.6					1	mg/l	lb/day	<0.05		1
2V. Acrylonitrile (107-13-1)	x		x	<0.05	<6.6					1	mg/l	lb/day	<0.05		1
3V. Benzene (71-43-2)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
4V. Bis (Chloro-methyl) Ether (542-88-1)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
5V. Bromoform (75-25-2)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
6V. Carbon Tetrachloride (56-23-5)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
7V. Chlorobenzene (108-90-7)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
8V. Chlorodi-bromomethane (124-48-1)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
9V. Chloroethane (75-00-3)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
11V. Chloroform (67-66-3)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
12V. Dichloro-bromomethane (75-71-8)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
13V. Dichloro-difluoromethane (75-71-8)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
14V. 1,1-Dichloro-ethane (75-34-3)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
15V. 1,2-Dichloro-ethane (107-06-2)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
16V. 1,1-Dichloro-ethylene (75-35-4)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
17V. 1,2-Dichloro-propane (78-87-5)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
18V. 1,3-Dichloro-propylene (542-75-6)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
19V. Ethylbenzene (100-41-4)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
20V. Methyl Bromide (74-83-9)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
21V. Methyl Chloride (74-87-3)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1

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GAD000612796	01

Form Approved.
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Appproval 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	<1.3					1	mg/l	lb/day	<0.01		1
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
24V. Tetrachloroethylene (127-18-4)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
25V. Tolulene (108-88-3)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
26V. 1,2-Trans-Dichloroethylene (156-60-5)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
27V. 1,1,1-Trichlorothene (71-56-6)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
28V. 1,1,2-Trichloroethane (79-00-5)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
29V. Trichloroethylene (79-01-6)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
30V. Trichlorofluoromethane (75-69-4)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
31V. Vinyl Chloride (75-01-4)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
GC/MS FRACTION — ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
2A. 2,4-Dichlorophenol (120-83-2)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
3A. 2,4-Dimethylphenol (105-67-9)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
4A. 4,6-Dinitro-O-Cresol (534-52-1)	x		x	<0.05	<6.6					1	mg/l	lb/day	<0.05		1
5A. 2,4-Dinitrophenol (51-28-5)	x		x	<0.05	<6.6					1	mg/l	lb/day	<0.05		1
6A. 2-Nitrophenol (88-75-5)	x		x	<0.05	<6.6					1	mg/l	lb/day	<0.05		1
7A. 4-Nitrophenol (100-02-7)	x		x	<0.05	<6.6					1	mg/l	lb/day	<0.05		1
8A. P-Chloro-M-Cresol (59-50-7)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
9A. Pentachlorophenol (87-86-5)	x		x	<0.02	<2.7					1	mg/l	lb/day	<0.02		1
10A. Phenol (108-95-2)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
11A. 2,4,6-Trichlorophenol (88-06-2)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		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	c. 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		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
2B. Acenaphtylene (208-96-8)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
3B. Anthracene (120-12-7)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
4B. Benzidine (92-87-5)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
5B. Benzo *(a)* Anthracene (56-55-3)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
6B. Benzo *(a)* Pyrene (50-32-8)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
7B. 3,4-Benzo fluoranthene (205-99-2)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
8B. Benzo *(ghi)* Perylene (191-24-2)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
9B. Benzo *(k)* Fluoranthene (207-08-9)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
10B. Bis *(2-Chloro-ethoxy)* Methane (111-91-1)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
11B. Bis *(2-Chloro-ethyl)* Ether (111-44-4)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
13B. Bis *(2-Ethyl-hexyl)* Phthalate (117-81-7)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
15B. Butyl Benzyl Phthalate (85-68-7)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
16B. 2-Chloro-naphthalene (91-58-7)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
18B. Chrysene (218-01-9)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
20B. 1,2-Dichloro-benzene (95-50-1)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
21B. 1,3-Dichloro-benzene (541-73-1)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
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Form Approved.
OMB No. 2040-0086
Appproval 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 — BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
23B. 3,3-Dichlorobenzidine (91-94-1)	x		x	<0.02	<2.7					1	mg/l	lb/day	<0.02		1
24B. Diethyl Phthalate (84-66-2)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
25B. Dimethyl Phthalate (131-11-3)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
26B. Di-N-Butyl Phthalate (84-74-2)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
27B. 2,4-Dinitrotoluene (121-14-2)	x		x	<0.02	<2.7					1	mg/l	lb/day	<0.02		1
28B. 2,6-Dinitrotoluene (606-20-2)	x		x	<0.02	<2.7					1	mg/l	lb/day	<0.02		1
29B. Di-N-Octyl Phthalate (117-84-0)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
30B. 1,2-Diphenylhydrazine *(as Azobenzene)* (122-66-7)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
31B. Fluoranthene (206-44-0)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
32B. Fluorene (86-73-7)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
33B. Hexachlorobenzene (118-74-1)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
34B. Hexachlorobutadiene (87-68-3)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
35B. Hexachlorocyclopentadiene (77-47-4)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
36B. Hexachloroethane (67-72-1)	x		x	<0.002	<0.27					1	mg/l	lb/day	<0.002		1
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
38B. Isophorone (78-59-1)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
39B. Naphthalene (91-20-3)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
40B. Nitrobenzene (98-95-3)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
41B. N-Nitrosodimethylamine (62-75-9)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
42B. N-Nitrosodi-N-Propylamine (621-64-7)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		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		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
44B. Phenanthrene (85-01-8)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
45B. Pyrene (129-00-0)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
46B. 1,2,4-Trichlorobenzene (120-82-1)	x		x	<0.01	<1.3					1	mg/l	lb/day	<0.01		1
GC/MS FRACTION — PESTICIDES															
1P. Aldrin (309-00-2)	x		x	<0.0001	<0.01					1	mg/l	lb/day	<0.0001		1
2P. α-BHC (319-84-6)	x		x	<0.0001	<0.01					1	mg/l	lb/day	<0.0001		1
3P. β-BHC (319-85-7)	x		x	<0.0001	<0.01					1	mg/l	lb/day	<0.0001		1
4P. γ-BHC (58-89-9)	x		x	<0.0001	<0.01					1	mg/l	lb/day	<0.0001		1
5P. δ-BHC (319-86-8)	x		x	<0.0001	<0.01					1	mg/l	lb/day	<0.0001		1
6P. Chlordane (57-74-9)	x		x	<0.0005	<0.07					1	mg/l	lb/day	<0.0005		1
7P. 4,4'-DDT (50-29-3)	x		x	<0.0002	<0.03					1	mg/l	lb/day	<0.0002		1
8P. 4,4'-DDE (72-55-9)	x		x	<0.0002	<0.03					1	mg/l	lb/day	<0.0002		1
9P. 4,4'-DDD (72-54-8)	x		x	<0.0002	<0.03					1	mg/l	lb/day	<0.0002		1
10P. Dieldrin (60-57-1)	x		x	<0.0001	<0.01					1	mg/l	lb/day	<0.0001		1
11P. α-Endosulfan (115-29-7)	x		x	<0.0005	<0.07					1	mg/l	lb/day	<0.0005		1
12P. β-Endosulfan (115-29-7)	x		x	<0.0005	<0.07					1	mg/l	lb/day	<0.0005		1
13P. Endosulfan Sulfate (1031-07-8)	x		x	<0.0005	<0.07					1	mg/l	lb/day	<0.0005		1
14P. Endrin (72-20-8)	x		x	<0.0002	<0.03					1	mg/l	lb/day	<0.0002		1
15P. Endrin Aldehyde (7421-93-4)	x		x	<0.0002	<0.03					1	mg/l	lb/day	<0.0002		1
16P. Heptachlor (76-44-8)	x		x	<0.0001	<0.01					1	mg/l	lb/day	<0.0001		1

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CONTINUED FROM PAGE V-8

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612796	01

Form Approved.
OMB No. 2040-0086
Appproval 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		x	<0.0001	<0.01					1	mg/l	lb/day	<0.0001		1
18P. PCB-1242 (53469-21-9)	x		x	<0.001	<0.1					1	mg/l	lb/day	<0.001		1
19P. PCB-1254 (11097-69-1)	x		x	<0.001	<0.1					1	mg/l	lb/day	<0.001		1
20P. PCB-1221 (11104-28-2)	x		x	<0.001	<0.1					1	mg/l	lb/day	<0.001		1
21P. PCB-1232 (11141-16-5)	x		x	<0.001	<0.1					1	mg/l	lb/day	<0.001		1
22P. PCB-1248 (12672-29-6)	x		x	<0.001	<0.1					1	mg/l	lb/day	<0.001		1
23P. PCB-1260 (11096-82-5)	x		x	<0.001	<0.1					1	mg/l	lb/day	<0.001		1
24P. PCB-1016 (12674-11-2)	x		x	<0.001	<0.1					1	mg/l	lb/day	<0.001		1
25P. Toxaphene (8001-35-2)	x		x	<0.002	<0.3					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 hseets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)* GAD000612796

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

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

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 (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG. VALUE (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)	<8	<146.4					1	mg/l	lb/day	<8		1
b. Chemical Oxygen Demand (COD)	13	237.9					1	mg/l	lb/day	11		1
c. Total Organic Carbon (TOC)	2	36.6					1	mg/l	lb/day	2		1
d. Total Suspended Solids (TSS)	<5	<91.5					1	mg/l	lb/day	<5		-1
e. Ammonia *(as N)*	0.1	1.8					1	mg/l	lb/day	<0.1		1
f. Flow	VALUE 1,527calc		VALUE		VALUE 79,200 max			gpm		VALUE		
g. Temperature *(winter)*	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature *(summer)*	VALUE 24.2		VALUE		VALUE		8	°C		VALUE 24.2		8
i. pH	MINIMUM 7.22	MAXIMUM 7.31	MINIMUM	MAXIMUM			4	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	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG. VALUE (2) MASS	d. NO. OF ANALYSES	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 ANALYSES
a. Bromide (24959-67-9)	x		0.1	1.8					1	mg/l	lb/day	<0.1		1
b. Chlorine, Total Residual	x		0						4	mg/l	lb/day	0		4
c. Color	x		5						1	pcu		<5		1
d. Fecal Coliform	x		2						1	col/100ml		<2		1
e. Fluoride (16984-48-8)	x		0.2	3.7					1	mg/l	lb/day	0.2		1
f. Nitrate-Nitrite *(as N)*	x		0.2	3.7					1	mg/l	lb/day	<0.1		1

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		e. 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		0.5	9.2					1	mg/l	lb/day	0.7		1
h. Oil and Grease		x	<6	<109.8					1	mg/l	lb/day	<6		1
i. Phosphorus (as P), Total (7723-14-0)		x	<0.02	<0.4					1	mg/l	lb/day	<0.02		1
j. Radioactivity														
(1) Alpha, Total														
(2) Beta, Total														
(3) Radium, Total														
(4) Radium 226, Total														
k. Sulfate (as SO_4) (14808-79-8)	x		11	201.3					1	mg/l	lb/day	11		1
l. Sulfide (as SO_3) (14265-45-3)		x	<0.2	<3.7					1	mg/l	lb/day	<0.2		1
m. Sulfite (as SO_3) (14265-45-3)		x	<2	<36.6					1	mg/l	lb/day	<2		1
n. Surfactants		x	<0.04	<0.7					1	mg/l	lb/day	<0.04		1
o. Aluminum, Total (7440-39-3)		x	<0.1	<1.8					1	mg/l	lb/day	<0.1		1
p. Barium, Total (7440-39-3)	x		0.02	0.4					1	mg/l	lb/day	0.02		1
q. Boron, Total (7440-42-8)	x		0.04	0.7					1	mg/l	lb/day	0.05		1
r. Cobalt, Total (7440-48-4)		x	<0.04	<0.7					1	mg/l	lb/day	<0.04		1
s. Iron, Total (7439-89-6)	x		0.06	1.1					1	mg/l	lb/day	<0.04		1
t. Magnesium, Total (7439-95-4)	x		1.8	32.9					1	mg/l	lb/day	1.8		1
u. Molybdenum, Total (7439-98-7)		x	<0.04	<0.7					1	mg/l	lb/day	<0.04		1
v. Manganese, Total (7439-96-5)		x	<0.04	<0.7					1	mg/l	lb/day	<0.04		1
w. Tin, Total (7440-31-5		x	<0.04	<0.7					1	mg/l	lb/day	<0.04		1
x. Titanium, Total (7440-32-6)		x	<0.1	<1.8					1	mg/l	lb/day	<0.1		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
GAD000612796	04

Form Approved.
OMB No. 2040-0086
Appproval 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 of at least one analysis for that 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		x	<0.05	<0.9					1	mg/l	lb/day	<0.05		1
2M. Aresenic, Total (7440-38-2)	x		x	<0.03	<0.5					1	mg/l	lb/day	<0.03		1
3M. Beryllium, Total, 7440-41-7	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
4M. Cadmium, Total (7440-43-9)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
5M. Chromium Total (7440-47-3)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
6M. Copper, Total (7440-50-8)	x		x	<0.02	<0.4					1	mg/l	lb/day	<0.02		1
7M. Lead, Total (7439-92-1)	x		x	<0.025	<0.5					1	mg/l	lb/day	<0.025		1
8M. Mercury, Total (7439-97-6)	x		x	<0.0005	<0.01					1	mg/l	lb/day	<0.0005		1
9M. Nickel, Total (7440-02-0)	x		x	<0.02	<0.4					1	mg/l	lb/day	<0.02		1
10M. Selenium, Total (7782-49-2)	x		x	<0.04	<0.7					1	mg/l	lb/day	<0.04		1
11M. Silver, Total (7440-22-4)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
12M. Thallium, Total (7440-28-0)	x		x	<0.05	<0.9					1	mg/l	lb/day	<0.05		1
13M. Zinc, Total (7440-66-6)	x	x		0.02	0.4					1	mg/l	lb/day	<0.02		1
14M. Cyanide, Total (57-12-5)	x		x	<0.02	<0.4					1	mg/l	lb/day	<0.02		1
15M. Phenols, Total	x		x	<0.05	<0.9					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		x	<0.05	<0.9					1	mg/l	lb/day	<0.05		1
2V. Acrylonitrile (107-13-1)	x		x	<0.05	<0.9					1	mg/l	lb/day	<0.05		1
3V. Benzene (71-43-2)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
4V. Bis (*Chloromethyl*) Ether (542-88-1)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
5V. Bromoform (75-25-2)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
6V. Carbon Tetrachloride (56-23-5)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
7V. Chlorobenzene (108-90-7)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
8V. Chlorodibromomethane (124-48-1)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
9V. Chloroethane (75-00-3)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
10V. 2-Chloroethylvinyl Ether (110-75-8)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
11V. Chloroform (67-66-3)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
12V. Dichlorobromomethane (75-71-8)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
13V. Dichlorodifluoromethane (75-71-8)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
14V. 1,1-Dichloroethane (75-34-3)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
15V. 1,2-Dichloroethane (107-06-2)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
16V. 1,1-Dichloroethylene (75-35-4)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
17V. 1,2-Dichloropropane (78-87-5)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
18V. 1,3-Dichloropropylene (542-75-6)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
19V. Ethylbenzene (100-41-4)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
20V. Methyl Bromide (74-83-9)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
21V. Methyl Chloride (74-87-3)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1

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EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
GAD000612796	04

Form Approved.
OMB No. 2040-0086
Appproval 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 — VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
24V. Tetrachloroethylene (127-18-4)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
25V. Tolnene (108-88-3)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
26V. 1,2-Trans-Dichloroethylene (156-60-5)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
27V. 1,1,1-Trichlorothene (71-56-6)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
28V. 1,1,2-Trichloroethane (79-00-5)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
29V. Trichloroethylene (79-01-6)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
30V. Trichlorofluoromethane (75-69-4)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
31V. Vinyl Chloride (75-01-4)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
GC/MS FRACTION — ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
2A. 2,4-Dichlorophenol (120-83-2)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
3A. 2,4-Dimethylphenol (105-67-9)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
4A. 4,6-Dinitro-O-Cresol (534-52-1)	x		x	<0.05	<0.9					1	mg/l	lb/day	<0.05		1
5A. 2,4-Dinitrophenol (51-28-5)	x		x	<0.05	<0.9					1	mg/l	lb/day	<0.05		1
6A. 2-Nitrophenol (88-75-5)	x		x	<0.05	<0.9					1	mg/l	lb/day	<0.05		1
7A. 4-Nitrophenol (100-02-7)	x		x	<0.05	<0.9					1	mg/l	lb/day	<0.05		1
8A. P-Chloro-M-Cresol (59-50-7)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
9A. Pentachlorophenol (87-86-5)	x		x	<0.02	<0.4					1	mg/l	lb/day	<0.02		1
10A. Phenol (108-95-2)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
11A. 2,4,6-Trichlorophenol (88-06-2)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		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		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
2B. Acenaphtylene (208-96-8)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
3B. Anthracene (120-12-7)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
4B. Benzidine (92-87-5)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
5B. Benzo *(a)* Anthracene (56-55-3)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
6B. Benzo *(a)* Pyrene (50-32-8)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
7B. 3,4-Benzo-fluoranthene (205-99-2	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
8B. Benzo *(ghi)* Perylene (191-24-2)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
9B. Benzo *(k)* Fluoranthene (207-08-9)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
10B. Bis *(2-Chloro-ethoxy)* Methane (111-91-1)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
11B. Bis *(2-Chloro-ethyl)* Ether (111-44-4)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
13B. Bis *(2-Ethyl-hexyl)* Phthalate (117-81-7)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
15B. Butyl Benzyl Phthalate (85-68-7)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
16B. 2-Chloro-naphthalene (91-58-7)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
18B. Chrysene (218-01-9)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
20B. 1,2-Dichloro-benzene (95-50-1)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
21B. 1,3-Dichloro-benzene (541-73-1)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
GAD000612796	04

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OMB No. 2040-0086
Appproval 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		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
23B. 3,3-Dichlorobenzidine (91-94-1)	x		x	<0.02	<0.4					1	mg/l	lb/day	<0.02		1
24B. Diethyl Phthalate (84-66-2)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
25B. Dimethyl Phthalate (131-11-3)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
26B. Di-N-Butyl Phthalate (84-74-2)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
27B. 2,4-Dinitrotoluene (121-14-2)	x		x	<0.02	<0.4					1	mg/l	lb/day	<0.02		1
28B. 2,6-Dinitrotoluene (606-20-2)	x		x	<0.02	<0.4					1	mg/l	lb/day	<0.02		1
29B. Di-N-Octyl Phthalate (117-84-0)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
30B. 1,2-Diphenylhydrazine *(as Azobenzene)* (122-66-7)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
31B. Fluoranthene (206-44-0)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
32B. Fluorene (86-73-7)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
33B. Hexachlorobenzene (118-74-1)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
34B. Hexachlorobutadiene (87-68-3)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
35B. Hexachlorocyclopentadiene (77-47-4)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
36B. Hexachloroethane (67-72-1)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
38B. Isophorone (78-59-1)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
39B. Naphthalene (91-20-3)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
40B. Nitrobenzene (98-95-3)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
41B. N-Nitrosodimethylamine (62-75-9)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
42B. N-Nitrosodi-N-Propylamine (621-64-7)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		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		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
44B. Phenanthrene (85-01-8)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
45B. Pyrene (129-00-0)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
46B. 1,2,4-Trichlorobenzene (120-82-1)	x		x	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
GC/MS FRACTION — PESTICIDES															
1P. Aldrin (309-00-2)	x		x	<0.0001	<0.002					1	mg/l	lb/day	<0.0001		1
2P. α-BHC (319-84-6)	x		x	<0.0001	<0.002					1	mg/l	lb/day	<0.0001		1
3P. β-BHC (319-85-7)	x		x	<0.0001	<0.002					1	mg/l	lb/day	<0.0001		1
4P. γ-BHC (58-89-9)	x		x	<0.0001	<0.002					1	mg/l	lb/day	<0.0001		1
5P. δ-BHC (319-86-8)	x		x	<0.0001	<0.002					1	mg/l	lb/day	<0.0001		1
6P. Chlordane (57-74-9)	x		x	<0.0005	<0.01					1	mg/l	lb/day	<0.0005		1
7P. 4,4'-DDT (50-29-3)	x		x	<0.0002	<0.004					1	mg/l	lb/day	<0.0002		1
8P. 4,4'-DDE (72-55-9)	x		x	<0.0002	<0.004					1	mg/l	lb/day	<0.0002		1
9P. 4,4'-DDD (72-54-8)	x		x	<0.0002	<0.004					1	mg/l	lb/day	<0.0002		1
10P. Dieldrin (60-57-1)	x		x	<0.0001	<0.002					1	mg/l	lb/day	<0.0001		1
11P. α-Endosulfan (115-29-7)	x		x	<0.0005	<0.01					1	mg/l	lb/day	<0.0005		1
12P. β-Endosulfan (115-29-7)	x		x	<0.0005	<0.01					1	mg/l	lb/day	<0.0005		1
13P. Endosulfan Sulfate (1031-07-8)	x		x	<0.0005	<0.01					1	mg/l	lb/day	<0.0005		1
14P. Endrin (72-20-8)	x		x	<0.0002	<0.004					1	mg/l	lb/day	<0.0002		1
15P. Endrin Aldehyde (7421-93-4)	x		x	<0.0002	<0.004					1	mg/l	lb/day	<0.0002		1
16P. Heptachlor (76-44-8)	x		x	<0.0001	<0.002					1	mg/l	lb/day	<0.0001		1

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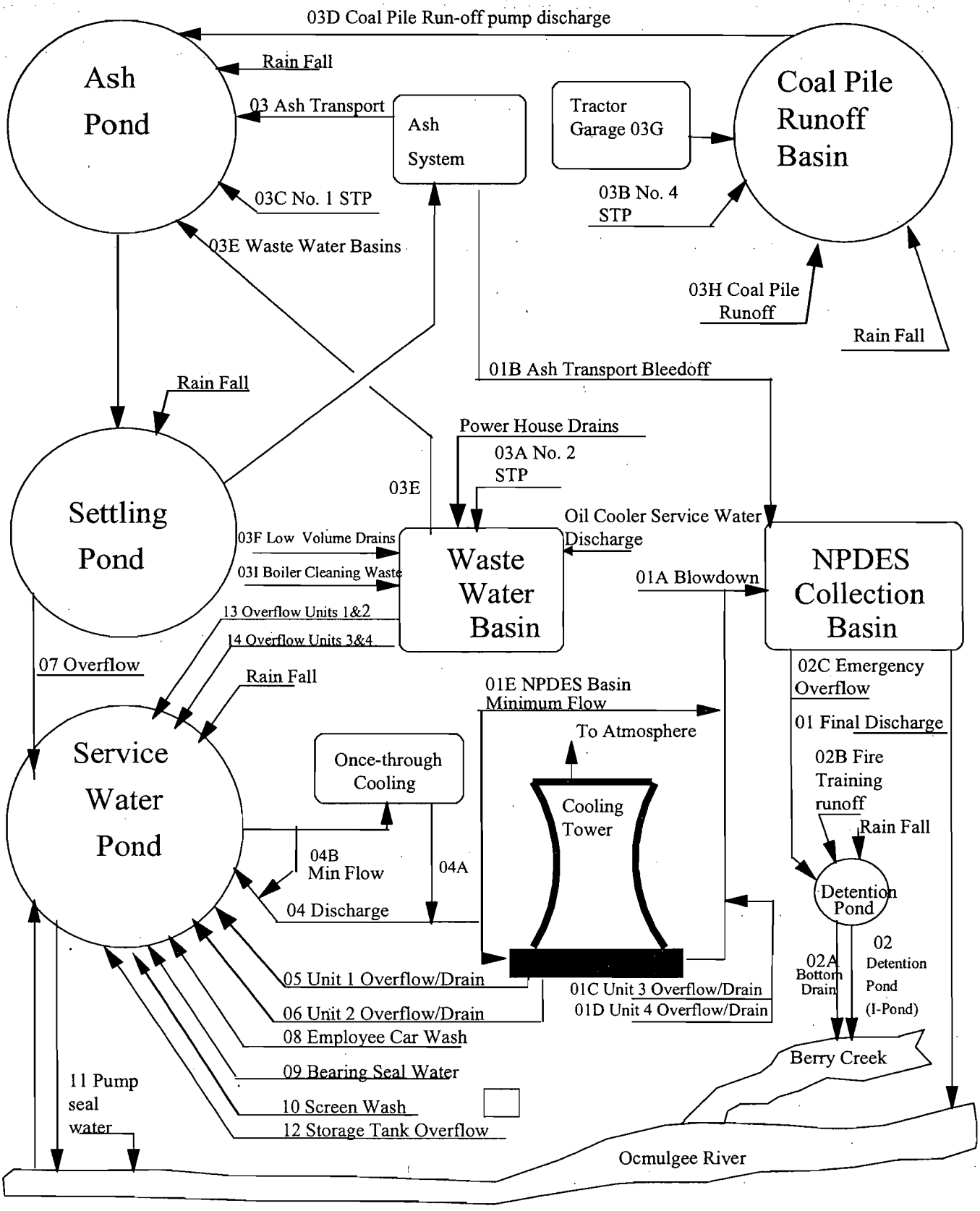
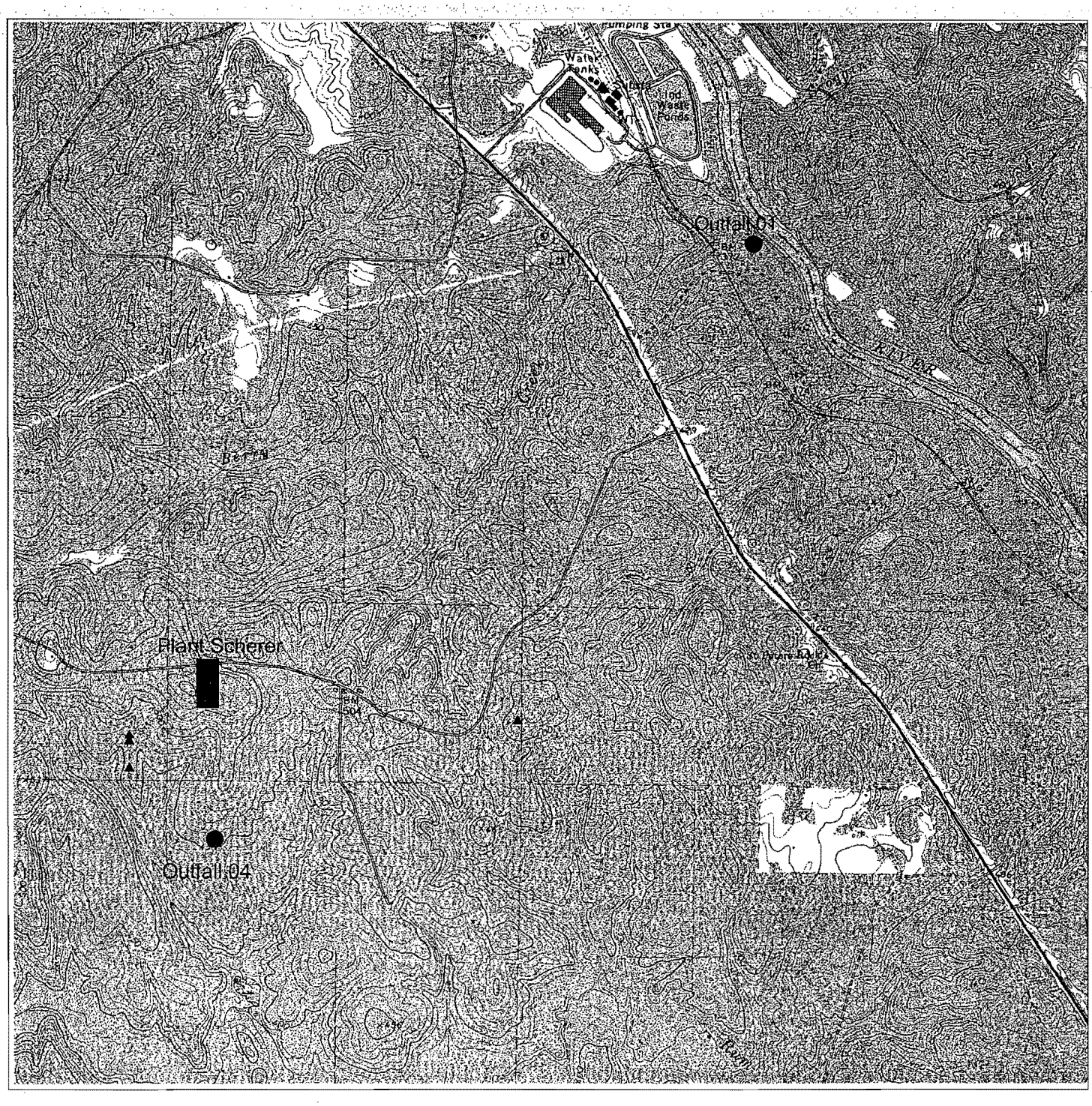
	a. Testing Required	b. Believed Present	b. Believed Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION — PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)	x		x	<0.0001	<0.002					1	mg/l	lb/day	<0.0001		1
18P. PCB-1242 (53469-21-9)	x		x	<0.001	<0.02					1	mg/l	lb/day	<0.001		1
19P. PCB-1254 (11097-69-1)	x		x	<0.001	<0.02					1	mg/l	lb/day	<0.001		1
20P. PCB-1221 (11104-28-2)	x		x	<0.001	<0.02					1	mg/l	lb/day	<0.001		1
21P. PCB-1232 (11141-16-5)	x		x	<0.001	<0.02					1	mg/l	lb/day	<0.001		1
22P. PCB-1248 (12672-29-6)	x		x	<0.001	<0.02					1	mg/l	lb/day	<0.001		1
23P. PCB-1260 (11096-82-5)	x		x	<0.001	<0.02					1	mg/l	lb/day	<0.001		1
24P. PCB-1016 (12674-11-2)	x		x	<0.001	<0.02					1	mg/l	lb/day	<0.001		1
25P. Toxaphene (8001-35-2)	x		x	<0.002	<0.04					1	mg/l	lb/day	<0.002		1

Plant Scherer NPDES Flow Diagram

July 2001



Plant Scherer



Quadsheet: East Juliette

N

2000 0 2000 4000 Feet

SOUTHERN GIS

PLANT SCHERER
ASH POND COTREATMENT
SUMMARY TABLE

A) DRY WEATHER (PROCESS) FL((Maximum Flows used)

Coal Pile + Waste Water Basins Units 1 thru 4 + No.1 STP	29.28 MGD		20330 GPM
Ash Transport Water 100% Recycle	0 MGD		0 GPM
Total Dry Weather (Process) Flow	29.28 MG		

B) RAINFALL RUNOFF (Using SCS Method)

Watershed Runoff	312.5 Acres		
Ash Pond Surface	490.0 Acres		
Total Runoff Area	802.5 Acres		
10-year, 24 hour storm	5.8 inches		
Annual Rainfall	49.76 inches		(0.136 inches/day)
TOTAL Rainfall Runoff	97.49 MG		

C) REQUIRED WATER VOLUME

(A)Dry Weather Flow + (B)Rainfall Runoff =	126.77 MG	OR	627,615 CY

D) ASH POND REMAINING STORAGE (Strict Interpertation, See Note 2)

From Ash Management Projections 1996 -2000 (NO Sales)

Pond life on 12/31 at water surface elevation 494.5

YEAR	2002	2003	2004	2005	2006	2007
CU YDS	15,960,700	15,130,700	14,282,700	13,416,700	12,532,700	11,630,700
MG	3223.9	3056.3	2885.0	2710.0	2531.5	2349.3

E) AVAILABLE WATER VOLUME on 12/31/2007

See (D) Above	2349.3 MG	OR	11,630,733 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. Strict Interpertation uses elevation 494.5, which represents the top of the discharge structure elevation (min. discharge elevation), see plant drawing EIC3444.

BEST MANAGEMENT PRACTICES PLAN

Georgia Power Company – Plant Scherer

NPDES Permit No. GA0035564
Macrofouling and Biofouling Control
Revision 2.0
July 26, 2001

1.0 INTRODUCTION

1.1 Basis

This BMP has been developed in accordance with Part II.B.13, Part III.B.4, and Part III.B.11 of the plant's NPDES Permit. This BMP addresses the use of biocides to control macrofouling and biofouling in the plant's cooling water systems. Upon approval by the Division and implementation by the plant, it will become part of the NPDES Permit for the site.

1.2 Plant Site

Plant Scherer is composed of four generating units with a combined nameplate rating of 3272 Megawatts. All units are currently in commercial operation. Cooling water and service water for all units is provided from Lake Juliette. All units utilize closed cycle condenser cooling. The main unit cooling water flow is 260,000 gpm per unit. A fraction of the flow is discharged as blowdown. The average blowdown flow is 6,791 gpm per unit. This discharges into a holding basin with the service water discharge of 2,500 gpm and the recycle blowdown of 10,600 gpm. Bulk water capacity of each unit's cooling tower system is 4.2 million gallons.

2.0 PROBLEM DESCRIPTION

2.1 Macrofouling

Various organisms can cause severe problems in generating plant water systems, depending on the plant geographic location, prevailing local conditions and plant specific design factors. The Asiatic clam (Corbicula fluminea) is capable of blocking small heat exchanger tubes and even plugging larger diameter pipes with low flow velocities. Furthermore, once the organism is dead the relic shells can still cause blockages. Due to it's life cycle, adaptability, and resistance to control methods it is extremely difficult to eliminate from water systems once it becomes established. Current control methods include the use of biocides, physical cleaning of affected piping, straining of intake water, and heat treatment. Each of these control methods has limitations on effectiveness.

Slime and algae growths have always been a problem in cooling water systems. The biological growths tend to entrain silt and clays, which further foul the surface and will in turn provide more substrate for biological growth. The weight of this type of fouling has caused the failure and collapse of cooling tower fill. Reduced cooling efficiency penalizes the operation of system turbines.

Concern is growing over the likely invasion of the Zebra mussel (Dreissena polymorpha). Experience at other utilities, as the organism continues it's spread, prove that control is extremely difficult with conventional methods and is not entirely successful. Once attached to the substrate, the mussel is not dislodged and may become the host substrate for future colonization. This leads to further blockage of the cooling system.

2.2 Site Problem

Plant Scherer has biofouling problems with slimes, algae, and Asiatic clams. They are known to be present in the cooling water source. Algae and slimes are believed to be the dominant causes of blockage in the cooling tower fill bundles. The clams are often found in plant systems (i.e. oil coolers, auxiliary heat exchangers, low velocity piping, etc.). It is obvious that the plant is subject to infestation and is in need of a control program.

3.0 CONTROL PROGRAM

3.1 Use of Biocides

While physical and mechanical methods of control will still be employed routinely to reduce the effects of biofouling, routine treatments of biocide will likely be required to maintain efficiency of heat exchangers. An oxidizing biocide such as chlorine has long been the biocide of choice because of it's proven effectiveness, ease of application, and cost. Increasing restrictions on the use, storage, and handling of chlorine have prompted us to seek alternate control methods. Additionally, oxidizing biocides increase the rate of corrosion in copper bearing metals which are common in heat exchangers.

Non-oxidizing biocides, such as quaternary amines, have been found to be effective on certain organisms. Quaternary amines are also effective on algae. Other advantages of the non-oxidizers are reduced frequency of application, and ready absorption of the active ingredient onto mud, silt, and clay, which exhausts the toxicity.

3.1.1 Service Water Routine Biological Control

Chlorine will be used for routine control of microbiological growth in the service water systems. Chlorine will be fed intermittently throughout the year to maintain control.

3.1.2 Service Water Asiatic Clam / Zebra Mussel Control

Chlorine will be used for seasonal control of Asiatic clams and Zebra mussels in the service water systems. Chlorine will be utilized as referenced in the facility NPDES Permit Part III.B.4.

3.1.3 Cooling Tower Routine Biological Control

Either an oxidizing or a non-oxidizing biocide will be used to control the growth of slime and algae in the cooling tower systems. If necessary, both types of biocide programs may be fed to maintain performance. The primary program will be Betz Powerline 3625 or an equivalent, a non-oxidizing biocide containing the quaternary amine ADBAC (n-alkyl dimethyl benzyl ammonium chloride). The secondary program will be chlorine, either gaseous or liquid.

3.2 Application Rates and Injection Points

3.2.1 Service Water Routine Biological Control

As a general rule, chlorine will be fed to the main service water headers just downstream from the pump intake bay. The biocide will be fed to each service water system (Units 1&2 and Units 3&4) to achieve a minimum free residual oxidant level of 0.2 ppm. Applications will normally be daily for one hour when the water temperature is above 60F and three times per week for one hour during winter months. It is anticipated that one hour of biocide application will be sufficient to control biological growth, but it may be applied for up to two hours per unit per day.

3.2.2 Service Water Asiatic Clam / Zebra Mussel Control

Chlorine will be fed to the service water headers as above. Each service water system (i.e. Units 1&2 and Units 3&4) will be treated to insure there is no toxicity in the discharge streams. (Reference Part III.B.4)

3.2.3 Cooling Tower Routine Biological Control

The non-oxidizing biocide will be fed to the cooling tower basin. Biocide dosage and frequency will vary based on seasonal conditions and system demand, ranging from 2 to 7.5 ppm active quaternary amine. Feed frequency will range from one to three times per week as needed, and cooling towers will be treated independently. As an alternative, chlorine will be fed to the cooling water in place or in addition to the non-oxidizing biocide. Chlorine dosage and frequency will vary based on seasonal conditions and system demand.

3.3 Elimination of Biocide from System

3.3.1 Service Water Routine Biological Systems

The biocide program proposed will not require a detoxification.

3.3.2 Service Water Asiatic Clam / Zebra Mussel Control

The biocide program proposed will not require a detoxification.

3.3.3 Cooling Tower Routine Biological Control

During non-oxidizing biocide feed the cooling tower blowdown will be closed and will remain closed until tests show that the product concentration in the tower basin is below the detection limit of 0.5 ppm. Bentonite clay will be kept on-hand to allow for detoxification of any inadvertent overflow. When chlorine is used for biocide treatment, the discharge from the cooling tower will be controlled as currently limited in the NPDES Permit for the site.

3.4 Effects in System

3.4.1 Routine Service Water Treatment

Microbiological growth in the service water coolers and heat exchangers will be minimized, thereby improving overall heat transfer and cooling efficiency. Reduced microbiological growth in the service water systems will also improve microbiological control in the systems supplied by service water, including the water treatment plants and cooling towers.

3.4.2 Asiatic Clams / Zebra Mussel Treatment

Macrofouling organisms will be eliminated throughout the water system treated. This will reduce maintenance requirements and enhance heat exchange efficiency.

3.4.3 Cooling Tower Treatment

Algae, slime, and microbiological growth will be minimized throughout the cooling tower systems, resulting in improved results condenser performance and reduced plugging of the tower fill.

3.5 Other Biocides and Methods of Control

It is expected that this method of treatment and control will be fully effective in controlling the biofouling experienced by this plant. However implementation of this plan does not preclude the use of other biocides or control methods, if they are shown to be equally beneficial. This plan will be revised in accordance with Section 7.0, if other biocides are found to be necessary.

4.0 MONITORING PROGRAM

4.1 Sample Collection

4.1.1 Routine Service Water Treatment

Samples will be collected from the service water system consistent with the facility NPDES Permit.

The analytical method for determining the chlorine concentration is amperometric titration, 40 CFR Part 136 Method No. 31, and also listed as EPA Method 330.1. The alternative measurement method will be EPA Method 330.4, DPD.

4.1.2 Asiatic Clam / Zebra Mussel Treatment

Samples will be collected from the service water system consistent with the facility NPDES Permit.

Final plant discharge chlorine levels will not exceed limits as set in the existing NPDES Permit.

The analytical method for determining the chlorine concentration is amperometric titration, 40 CFR Part 136 Method No. 31, and also listed as EPA Method 330.1. The alternative measurement method will be EPA Method 330.4, DPD.

4.1.3 Condenser Cooling Water Treatment

When a quaternary amine biocide is used, concentration will be measured within the first two hours after beginning treatment. No discharge will be allowed if the concentration is in excess of 0.05 ppm.

The analytical method for determining concentration of the non-oxidizing biocide is the Betz Clam-Trol CT-2 Methyl Orange Method. The detection limit (MDL) for this method is 0.05 ppm as Powerline 3625 (0.025 ppm active ADBAC quat). Other analytical methods, which meet or improve the (MDL), may be utilized without modification of this plan. The Division will be notified of any change in analytical methods. QA/QC data such as instrument calibration curves and instrument maintenance records will be retained for review by the Division.

In the event of an inadvertent overflow, the bentonite clay product will be added and samples will be collected once per hour at the plant discharge to insure the biocide is not detectable.

4.2 Reporting of Monitoring Results

Biocide concentration in the service water systems and cooling tower basins will be measured and recorded each date that they are treated, as outlined in Section 4.1. Results from samples representative of the discharge will be reported on the NPDES Quarterly Operation Monitoring Report (OMR) in a suitably concise format. Results of operational analyses will be retained for twelve months and will be available for review by the Division.

4.3 Equipment Inspections

To evaluate the effectiveness of the control programs, the main condensers, auxiliary coolers, and systems treated will be periodically inspected for the presence of microbiological growth and macrofouling organisms or relics of organisms.

5.0 OPTIMIZATION PROGRAM

5.1 Equipment Maintenance

All associated equipment and monitoring instruments will be maintained in proper operating conditions at all times.

5.2 Biocide Usage

The amount of biocide used will be re-evaluated periodically to determine if lesser amounts can be effectively utilized. This determination will be based on the results of plant inspections, information from other facilities, plant performance data, and the current scientific literature. If it appears that lower concentrations can effectively control fouling in the systems, then concentrations will be reduced accordingly and more intense inspections will be performed to document the effectiveness. If fouling is found subsequent to any reductions, the concentrations may be increased to the initial levels.

6.0 NPDES PERMIT CONDITIONS

6.1 Incorporation of BMP into Permit

Upon approval by the Division and implementation by the plant, the plan will be incorporated into the NPDES Permit for the facility.

7.0 REVISIONS

7.1 Revising the BMP

This BMP may be revised if necessary. The Plant Manager must approve the revision. A copy of the revised plan will be furnished to the Manager of Environmental Affairs. The Environmental Protection Division must approve any revision prior to implementation.

Approved for implementation: Date: _____

Plant Manager: _____

Georgia Department of Natural Resources
205 Butler Street, S.E., Suite 1252, Atlanta, Georgia 30334
J. Leonard Ledbetter, Commissioner
404/656-3500

Munn-P

April 6, 1987

Mr. Jack E. Ravan
Regional Administrator
U. S. Environmental Protection Agency
Region IV
345 Courtland Street
Atlanta, Georgia 30365

RE: Georgia Power Company
Plant Scherer
NPDES Permit No. GA0035564

Dear Mr. Ravan:

We have reviewed your January 28, 1987 letter regarding the latest draft permit for Plant Scherer. We have carefully considered your suggestions. We have incorporated all the significant changes in the attached final permit. Please refer to page 3 (01A), page 9 (04 and 05), page 10 (06 and 07), and Part III. B.4. Special Requirements on page 19.

The assistance provided by your office in this matter has been greatly appreciated. We look forward to expeditious re-issuance of the remaining power plant permits during 1987.

Sincerely,

J. Leonard Ledbetter

J. Leonard Ledbetter
Commissioner

JLL:thb

Attachment

cc: Mr. W. R. Woodall, Jr.

Georgia Power Company
333 Piedmont Avenue
Atlanta, Georgia 30308
Telephone 404 526-6526

Mailing Address:
Post Office Box 4545
Atlanta, Georgia 30302

Georgia Power
the southern electric system

W. R. Woodall, Jr.
Manager
Environmental Affairs

March 5, 1987

RECEIVED
MAR 13 1987
ENVIRONMENTAL PROTECTION DIVISION
NATURAL RESOURCES

PLANT SCHERER
NPDES Permit No. GA 0035564

Mr. H. F. Reheis, P.E.
Assistant Director
Environmental Protection Division
Georgia Department of Natural Resources
205 Butler Street, S.E.
Floyd Towers East
Atlanta, Georgia 30334

Dear Mr. Reheis:

In your December 29, 1986 letter, you requested that we revise our May 5, 1986 discussion of our proposed chlorination practices at Plant Scherer. Based on the Draft NPDES permit issued with that letter and subsequent discussion with your staff, we submit the following modified chlorination proposal.

Georgia Power Company no longer plans to install and utilize dechlorination equipment on any of the Plant Scherer discharges. Therefore, all references to dechlorination and associated monitoring activities in the May 5, 1986 letter are rescinded.

We still propose to conduct the Corbicula control chlorination program as previously described. We do not plan to chlorinate the service water system nor the condenser/cooling tower systems for normal biofouling control at the same time that chlorination for Corbicula control is being conducted.

Normal service water and condenser/cooling tower chlorination will be performed approximately one hour per day per unit with no simultaneous discharge of FAC and/or TRC from the cooling tower blowdowns. Chlorine residuals for normal biofouling control will be within permit limits at the cooling tower blowdown and will not exceed two hours per day per unit for TRC.

We also have two comments on the December 29, 1986 Draft NPDES permit. On page 10 of 21, OSN 06 and 07, the first paragraph of the narrative, the second sentence, states "FAC, TRC, chromium, zinc and ph are required for cooling tower overflow. . .". The requirement for pH should be deleted because this is still an internal waste stream at this point and pH is monitored at OSN 01 - Final Plant Discharge to Berry Creek.

Page 19 of 21, Special Requirement 4 states that "The service water will be chlorinated periodically from April through October, . . .". Because these are general date periods we request that the wording of this requirement be changed as follows:

"The service water will be chlorinated periodically during times of the year when the presence of Corbicula in the intake water is likely to occur,. . ."

I hope that this clarification of our chlorination practices and incorporation of our comments will produce a mutually acceptable permit.

If you have questions or comments, please advise.

Yours very truly,

W. R. Woodall, Jr.

GNG:mp

cc: Mr. J. C. Dozier
Mr. T. E. Hopkins

PERMIT NO. GA 0035564

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
Post Office Box 4545
Atlanta, Georgia 30302

is authorized to discharge from a facility located at

Scherer Steam Electric Generating Station
Georgia Highway 23
Juliette, Monroe County, Georgia 31406

to receiving waters Berry Creek and Rum Creek to the Ocmulgee River

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 April 6, 1987.

This permit and the authorization to discharge shall expire at midnight, March 16, 1992.

Signed this 6th **day of** April, 1987.

Director
Environmental Protection Division

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning effective date and lasting through March 16, 1992, the permittee is authorized to discharge from outfall(s) serial number(s) 01 - Detention Pond (I Pond) Final Discharge to Berry Creek; 01D - I Pond Bottom Drain.

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	kg/day(lbs/day)		Other Units(Specify) (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids	-	-	-	90	1/Month	Grab	Final Discharge or Bottom Drain
Total Residual Chlorine (TRC)	-	-	-	-	3/day(1)	Grab	Final Discharge or Bottom Drain

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per month by grab sample at the final discharge to Berry Creek or at the bottom drain when discharging.

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

(1) Monitoring and reporting of TRC is required only during continuous service water chlorination for controlling asiatic clams.

2. During the period beginning effective date and lasting through March 16, 1992, the permittee is authorized to discharge from outfall(s) serial number(s) 01A - Cooling Tower Blowdown for Units 1, 2, 3 and 4.

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

Effluent Characteristic	Discharge Limitations Units(Specify) (mg/l)			Monitoring Requirements		
	Daily Max.	Avg.	Inst.Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-
Free Available Chlorine (FAC)	-	0.2	0.5	1/Week	Multiple Grabs	Blowdown Line
Total Residual Chlorine (TRC)	-	-	-	1/Week	Multiple Grabs	Blowdown Line
TRC Time (minutes/day/unit)	120	-	-	1/Week	Multiple Grabs	Blowdown Line
Total Residual Chlorine (TRC)	-	-	-	1/Week	Multiple Grabs	Service Water
Total Chromium	0.2	-	-	1/Quarter	Grab	Blowdown Line
Total Zinc	1.0	-	-	1/Quarter	Grab	Blowdown Line

Multiple grab samples are to be collected on 15 minute intervals during periods of FAC and TRC discharges attributable to cooling tower/condenser chlorination. Intervals are to be 3/day during FAC and TRC discharges attributable to continuous service water chlorination. Samples are to be taken before each individual cooling tower blowdown combines with waste streams from other sources.

All numerical discharge limitations and monitoring requirements apply to the individual cooling tower blowdown from each generating unit. The limitations of 0.2/0.5 mg/l of FAC apply to FAC discharge attributable to cooling tower/condenser chlorination (i.e. effluent concentration of FAC above that due to continuous service water system chlorination). Time of discharge of TRC attributable to cooling tower/condenser chlorination is limited to 2 hours/day/unit. Simultaneous discharge of TRC attributable to cooling tower/condenser chlorination is prohibited. Also, see Part III, B.4., 5., and 6., beginning on page 19.

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DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

3. During the period beginning effective date and lasting through March 16, 1992, the permittee is authorized to discharge from outfall(s) serial number(s) 01B- Ash Transport Water (includes 02H Wastewater Basin Low Volume Waste).

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	kg/day(lbs/day)		Other Units(Specify) (mg/1)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location(1)
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Bleedoff
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	Bleedoff

(1) Samples are to be taken upstream of the final detention pond (I Pond) at the ash transport bleedoff line.

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DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

4. During the period beginning effective date and lasting through March 16, 1992, the permittee is authorized to discharge from outfall(s) serial number(s) 02J - Settling Pond Emergency Overflow to Lake Juliette (Ash Transport Water).

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	kg/day(lbs/day)		Other Units(Specify) (mg/1)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency(1)	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	Overflow

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 2/month by grab sampling.(1)

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

(1) Monitoring for TSS, Oil and Grease, and pH is required only when an overflow is occurring.

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DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

5. During the period beginning effective date and lasting through March 16, 1992, the permittee is authorized to discharge from outfall(s) serial number(s) 02K - Units 1 and 2 Wastewater Basin Emergency Overflow to Lake Juliette (Low Volume Wastes).

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	kg/day(lbs/day)		Other Units(Specify) (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency(1)	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	Overflow

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 2/month by grab sampling.(1)

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

(1) Monitoring for TSS, Oil and Grease, and pH is required only when an overflow is occurring.

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6. During the period beginning effective date and lasting through March 16, 1992, the permittee is authorized to discharge from outfall(s) serial number(s) 02L - Units 3 and 4 Wastewater Basin Emergency Overflow to Lake Juliette (Low Volume Wastes).

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	kg/day(lbs/day)		Other Units(Specify) (mg/1)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency(1)	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	Overflow

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 2/month by grab sampling.(1)

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

(1) Monitoring for TSS, Oil and Grease, and pH is required only when an overflow is occurring.

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7. During the period beginning effective date and lasting through March 16, 1992, the permittee is authorized to discharge from outfall(s) serial number(s) 03 - Service Water Final Discharge to Lake Juliette.

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	kg/day(lbs/day)		Other Units(Specify)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Sample Frequency	Sample Type	Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Temperature	-	-	-	-	1/Week	Grab	(1)
Total Residual Chlorine (TRC)	-	-	-	-	1/Week	Grab	Final Discharge

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

(1) Temperature will be monitored and reported for the plant intake and the final discharge. The difference ("ΔT") between the intake and discharge temperature shall be calculated and entered on the monitoring report.

8. During the period beginning effective date and lasting through March 16, 1992, the permittee is authorized to discharge from outfall(s) serial number(s) 04 and 05 - Units 1 and 2 Cooling Tower Basin Overflows/Basin Cleaning Wastes to Lake Juliette.

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

Effluent Characteristic	Discharge Limitations Units(Specify) (mg/l)				Monitoring Requirements		
	Avg.	Inst.Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-		-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	Overflow
Free Available Chlorine (FAC)	0.2	0.5	-	-	1/Week	Multiple Grabs	Overflow
Total Residual Chlorine (TRC)	-	-	-	-	1/Week	Multiple Grabs	Overflow
TRC Time (minutes/day/unit)	-	-	-	120	1/Week	Multiple Grabs	Overflow
Total Chromium	-	-	-	0.2	1/Quarter	Grab	Overflow
Total Zinc	-	-	-	1.0	1/Quarter	Grab	Overflow

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 2/month by grab sampling. There shall be no discharge of floating solids or visible foam in other than trace amounts.

TSS, O & G, and pH are required for basin cleaning waste discharges. FAC, TRC, TRC Time, chromium, zinc, and pH are required for cooling tower overflow discharges. Stop log leakage is not reportable, but its flow and effluent characteristics should be discussed in the bi-annual flow characterization study.

Multiple grab samples are to be collected on 15 minute intervals during periods of FAC and TRC discharges attributable to cooling tower/condenser chlorination. Intervals are to be 3/day during FAC and TRC discharges attributable to continuous service water chlorination. Samples are to be taken before each individual cooling tower overflow combines with waste streams from other sources.

All numerical discharge limitations and monitoring requirements apply to the individual cooling tower overflow from each generating unit. The limitations of 0.2/0.5 mg/l of FAC apply to FAC discharge attributable to cooling tower/condenser chlorination (i.e. effluent concentration of FAC above that due to continuous service water system chlorination). Time of discharge of TRC attributable to cooling tower/condenser chlorination is limited to 2 hours/day/unit. Simultaneous discharge of TRC attributable to cooling tower/condenser chlorination is prohibited. Also, see Part III. B. 4., 5., and 6.

9. During the period beginning effective date and lasting through March 16, 1992, the permittee is authorized to discharge from outfall(s) serial number(s) 06 and 07 - Units 3 and 4 Cooling Tower Basin Overflows/Basin Cleaning Wastes to Detention Pond (I Pond).

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

Effluent Characteristic	Discharge Limitations Units(Specify) (mg/l)				Monitoring Requirements		
	Avg.	Inst.Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-		-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	Overflow
Free Available Chlorine (FAC)	0.2	0.5	-	-	1/Week	Multiple Grabs	Overflow
Total Residual Chlorine (TRC)	-	-	-	-	1/Week	Multiple Grabs	Overflow
TRC Time (minutes/day/unit)	-	-	-	120	1/Week	Multiple Grabs	Overflow
Total Chromium	-	-	-	0.2	1/Quarter	Grab	Overflow
Total Zinc	-	-	-	1.0	1/Quarter	Grab	Overflow

TSS and O & G are required for basin cleaning waste discharges. FAC, TRC, TRC Time, chromium, and zinc are required for cooling tower overflow discharges. Stop log leakage is not reportable, but its flow and effluent characteristics should be discussed in the bi-annual flow characterization study.

Multiple grab samples are to be collected on 15 minute intervals during periods of FAC and TRC discharges attributable to cooling tower/condenser chlorination. Intervals are to be 3/day during FAC and TRC discharges attributable to continuous service water chlorination. Samples are to be taken before each individual cooling tower overflow combines with waste streams from other sources.

All numerical discharge limitations and monitoring requirements apply to the individual cooling tower overflow from each generating unit. The limitations of 0.2/0.5 mg/l of FAC apply to FAC discharge attributable to cooling tower/condenser chlorination (i.e. effluent concentration of FAC above that due to continuous service water system chlorination). Time of discharge of TRC attributable to cooling tower/condenser chlorination is limited to 2 hours/day/unit. Simultaneous discharge of TRC attributable to cooling tower/condenser chlorination is prohibited. Also, see Part III. B. 4., 5., and 6.

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. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

Note: EPD as used herein means the Division of Environmental Protection 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 for each month and reported on an Operation Monitoring Report (Form WQ 1.45), postmarked no later than the 21st day of the month following the completed reporting period. The first report is due on July 21, 1987.
The EPD may require reporting of additional monitoring results by written notification. Signed copies of these, and all other reports required herein, shall be submitted to the following address:

Georgia Environmental Protection Division
Industrial Wastewater Program
205 Butler Street, S.E., Floyd Towers East
Suite 1070
Atlanta, Georgia 30334

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 concentration made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily determination of concentration shall be the arithmetic average (weighted by flow value) of all the samples collected during that calendar day.

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

e. "Weighted by flow value" means the summation of each sample concentration times its respective flow in convenient units divided by the sum of the respective flows.

f. For the purpose of this permit, a calendar day is defined as any consecutive 24-hour period.

4. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304(g) of the Federal Act.

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;

b. The dates the analyses were performed;

c. The person(s) who performed the analyses;

d. The analytical techniques or methods used; and

e. 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 EPD may require more frequent monitoring or the monitoring of other pollutants not required in this permit by written notification.

7. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained by the permittee for a minimum of three (3) years, or longer if requested by the State Environmental Protection Division.

A. MANAGEMENT REQUIREMENTS

1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges or pollutants must be reported by submission of a new NPDES application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the EPD of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

2. Noncompliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum effluent limitation specified in this permit, the permittee shall provide the Water Protection Branch of EPD with the following information, in writing, within five (5) days of becoming aware of such condition:

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.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to navigable waters resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypassing

Any diversion from or bypass of facilities covered by this permit is prohibited, except (i) where unavoidable to prevent loss of life or severe property damage, or (ii) where excessive storm drainage, runoff, or infiltration would damage any facilities necessary for compliance with the effluent limitations and prohibitions of this permit. 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. The permittee shall monitor all overflows and bypasses in the sewer and treatment system. A record of each overflow and bypass shall be kept with information on the location, cause, duration, and peak flow rate. 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. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State.

7. Power Failures

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

a. In accordance with the Schedule of Compliance contained in Part I, provide an alternative power source sufficient to operate the wastewater control facilities;

or, if such alternative power source is not in existence, and no date for its implementation appears in Part I,

b. 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

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 an effluent 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 monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.

2. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Water Protection Branch of EPD.

3. Availability of Reports

Except for data determined by the Director of EPD to be confidential under Section 16 of the State Act or the Regional Administrator of the U. S. Environmental Protection Agency under Section 308 of the Federal Act, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the Atlanta office of the EPD. Effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 22(b) of the State Act.

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

Notwithstanding Part II, B-4 above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Federal Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition. A draft permit will be provided for review and comments prior to issuance.

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 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 any 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 Available Technology Economically Achievable

Notwithstanding Part II, B-4 above, if an applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 301(b)2 of the Federal Act for a pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with such effluent standard or prohibition. A draft permit will be provided for review and comments prior to issuance.

14. 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.

PART III

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 Water Pollution Control 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 with requirements listed below. This applies to any preoperational chemical cleaning of metal process equipment also. The treatment and disposal procedures shall be discussed in the bi-annual flow characterization study.

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 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. Neither free available chlorine (FAC) nor total residual chlorine (TRC) 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 Director that the units in a particular location cannot operate at or below this level of chlorination. The permittee has demonstrated the need to continuously chlorinate the service water system to control asiatic clams. The present intent is to chlorinate the service water periodically from April through October, five days per month for 24 hours per day at an initial level of 1.0 mg/l FAC. Other months, longer durations, and lower FAC levels may be used. This chlorination practice will result occasionally in the discharge of FAC or TRC from each cooling tower simultaneously and for more than 2 hours per day. The permittee must reduce the chlorine discharge if possible and shall perform a study to determine the minimum practicable chlorine levels, frequencies, and duration of continuous chlorination for the service water system to adequately control asiatic clams. A plan of study with a schedule of activities must be submitted to the EPD within 90 days after the effective date of the permit and implemented upon approval.

5. In accordance with 40 CFR 423.11(k), the free available chlorine (FAC) average means the average over any individual chlorine release period of 2 hours per day per unit. The FAC 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 FAC and 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.

6. In accordance with 40 CFR 423.13(d)(3), the permittee shall certify every two years in the flow characterization study that no priority pollutant other than chromium or zinc is above detectable limits in outfalls 01A, 04, 05, 06, and 07 (cooling tower blowdowns or overflows).

7. In the event that waste streams from 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.

8. 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 Water Pollution Control Act.

9. The permittee shall determine the flow of the various waste streams and submit this determination to the Director once every two years.

10. All sewage treatment plants (STP) must be properly operated and maintained. This applies to 02A Main STP, 02B Coal Handling STP, 02C Unit 1 Temporary STP, and 02D Unit 2 Temporary STP.

11. Every two years, the permittee shall review the water treatment chemicals other than chlorine discharged to State waters. This includes, but is not limited to microbiocides, corrosion inhibitors, and dispersants. These chemicals shall be used and disposed of in accordance with the manufacturers' instructions unless other requirements are imposed by EPD.

    As part of the flow characterization study of Item 13. below, the permittee shall submit to EPD a current inventory of all chemicals discharged during the previous twenty-four months.

12. Forms other than Form WQ 1.45 may be used for the quarterly Operation Monitoring Report upon approval by the EPD.

13. Summary of flow characterization study requirements from preceding pages:

    a. Outfalls 04, 05, 06, and 07 stop log leakage flow and effluent characteristics.

    b. Metal cleaning waste treatment and disposal procedures.

    c. Flow determination of various waste streams.

    d. Water treatment chemical inventory.

    e. Cooling tower blowdown priority pollutant certification per 40 CFR 423.13(d)(3).

Georgia Department of Natural Resources
205 Butler Street, S.E., Floyd Towers East, Atlanta, Georgia 30334
J. Leonard Ledbetter, Commissioner
Harold F. Reheis, Assistant Director
Environmental Protection Division

December 29, 1986

Mr. Jack E. Ravan
Regional Administrator
U. S. Environmental Protection Agency
Region IV
345 Courtland Street
Atlanta, Georgia 30365

Re: Georgia Power Company
Plant Scherer
NPDES Permit No. GA 0035564

Dear Mr. Ravan:

We are responding to your November 4, 1986 letter regarding our September 16, 1986 draft NPDES permit for Plant Scherer. After several discussions with Mr. Charles Kaplan of your staff and Mr. George Guill of Georgia Power Company, we have elected to implement alternative No. 1 of your letter.

Georgia Power Company has indicated that sequential discharge of cooling tower/condenser chlorine will be done during normal bio-fouling control, rather than simultaneous discharge as proposed in the company's May 5, 1986 letter. This is a major change in their operating procedure and should eliminate your objection. Georgia Power will be requested to revise their discussion of chlorination practices to conform to the draft permit prior to issuance.

The enclosed draft permit is written with the intent of complying exactly with your requirements for alternative No. 1. In fact, several quotes or paraphrases from your November letter have been incorporated into the permit.

Please review this draft carefully within the bounds of your specific objection. In our October 8, 1986 meeting, we asked EPA to provide us with all specific objections, so that we could revise the proposed permit for the final time. EPA's November 4 letter was intended for this purpose. There should be no reason to raise objections or comments which were not included in your November 4 letter. We wish to issue this permit as written since alternative No. 1 allows strict adherence to the regulations without requiring immediate arbitrary installation of dechlorination. Toxicity reduction can be implemented gradually based on demonstrated need during the life of the permit.

Regarding outfall 03, the modification provision of Part II. B. 8. will enable adequate toxicity control and a separate special condition is not needed. Reductions in TRC discharge will be required if EPD documents TRC toxicity in the receiving water. This approach is consistent with our developing statewide strategy for controlling and abating TRC toxicity.

Finally, the public hearing requirements have been satisfied. This permit modification was initiated by Georgia Power on October 8, 1984 specifically to begin asiatic clam control in the service water. After extensive study and negotiation, it was decided that a new permit would be necessary. On August 15, 1985, a draft permit was prepared that was very similar to the enclosed one. Public notice was issued on August 30, 1985 and expired 30 days later with no comments being received. Therefore, we do not intend to repeat the public notice procedure.

If you have questions during your review of this latest draft, please do not hesitate to call.

Sincerely,

Harold F. Reheis

Harold F. Reheis, P.E.
Assistant Director

HFR:thk
Enclosure

cc: Georgia Power Company

Georgia Department of Natural Resources
205 Butler Street, S.E., Floyd Towers East, Atlanta, Georgia 30334
J. Leonard Ledbetter, Commissioner
Harold F. Reheis, Assistant Director
Environmental Protection Division

December 29, 1986

Mr. W. R. Woodall, Jr.
Manager
Environmental Affairs
Georgia Power Company
P. O. Box 4545
Atlanta, Georgia 30302

Re: Plant Scherer
NPDES Permit No. GA 0035564

Dear Mr. Woodall:

We have received your December 2, 1986 letter regarding the November 4, 1986 EPA comment letter. We have also discussed our approach on the next draft permit with Mr. George Guill of your staff on December 12, 1986.

It appears that an acceptable final permit can be written if Georgia Power Company can avoid simultaneous discharge of chlorine in cooling tower blowdown during normal biofouling control. Mr. Guill indicated that this may be possible, and if so, we request that your May 5, 1986 discussion of chlorination practices be revised accordingly.

The enclosed draft permit has been prepared in conformance with the requirements of alternative No. 1 in EPA's November 4, 1986 letter. This permit will allow asiatic clam control if chlorine discharges are minimized. Dechlorination will not be considered until water quality impacts have been investigated and appropriate chlorine discharge levels determined.

Please review the draft and respond by January 19, 1987.

Sincerely,

Harold F. Reheis

Harold F. Reheis, P.E.
Assistant Director

HFR:thk
Enclosure

cc: Mr. George Guill (w/enclosure)

cc: U. S. Environmental Protection Agency

Georgia Department of Natural Resources
205 Jesse Hill Jr., S.E., Suite 1152 East Floyd Tower, Atlanta, Georgia 30334
Lonice C. Barrett, Commissioner
Harold F. Reheis, Director
David Word, Assistant Director
Environmental Protection Division
404/656-4713

January 30, 2002

Mr. C. M. Hobson
Vice President, Environmental Affairs
Georgia Power Company
241 Ralph McGill Boulevard, NE
Atlanta, GA 30308

RE: Plant Scherer
NPDES Permit No. GA0035564

Dear Mr. Hobson:

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 this permit.

Sincerely,

Harold F. Reheis

Harold F. Reheis
Director

HFR:th

Attachment

cc: Mr. Scott Gordon (w/attachment)
U. S. Environmental Protection Agency

PERMIT NO. GA0035564

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

Plant Scherer (SIC 4911)
10986 Highway 87
Juliette, Monroe County, Georgia 31046

to receiving waters

Berry Creek, Lake Juliette (Rum Creek) and the Ocmulgee River (Ocmulgee 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 January 30, 2002.

This permit and the authorization to discharge shall expire at midnight, November 30, 2006.

Signed this 30th day of January, 2002.

Director,
Environmental Protection Division

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning effective date and lasting through November 30, 2006, the permittee is authorized to discharge from outfall(s) serial number(s) 01 - Final Plant Discharge: Combined discharge of outfalls 01A, 01B, 01C, 01D, and 01E to the Ocmulgee River.

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Residual Chlorine (TRC)		-	-	-	1/Day*	Grab	Final Discharge

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per month by a grab sample of the final discharge to the Ocmulgee River.

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

* Monitoring of TRC is required only during continuous service water chlorination for controlling asiatic clams.

2. During the period beginning effective date and lasting through November 30, 2006, the permittee is authorized to discharge from outfall(s) serial number(s) 01A - Cooling Tower Blowdown for Units 1, 2, 3 and 4.

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

Effluent Characteristic	Discharge Limitations Concentration Based (mg/l)			Monitoring Requirements		
	Daily Max.	Avg.	Inst. Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-
Free Available Chlorine (FAC)	-	0.2	0.5	1/Week	Multiple Grabs	Blowdown Line
Total Residual Chlorine (TRC)	-	-	-	1/Week	Multiple Grabs	Blowdown Line
TRC Time (minutes/day/unit)	120	-	-	1/Week	Multiple Grabs	Blowdown Line
Total Residual Chlorine (TRC)	-	-	-	1/Week	Multiple Grabs	Service Water
Total Chromium	0.2	-	-	1/Year	Grab	Blowdown Line
Total Zinc	1.0	-	-	1/Year	Grab	Blowdown Line

Multiple grab samples are to be collected on 15 minute intervals during periods of FAC and TRC discharges attributable to cooling tower/condenser chlorination. Intervals are to be once per day during FAC and TRC discharges attributable to continuous service water chlorination. Samples are to be taken before each individual cooling tower blowdown combines with waste streams from other sources.

All numerical discharge limitations and monitoring requirements apply to the individual cooling tower blowdown from each generating unit. The limitations of 0.2/0.5 mg/l of FAC apply to FAC discharge attributable to cooling tower/condenser chlorination (i.e. effluent concentration of FAC above that due to continuous service water system chlorination). Time of discharge of TRC attributable to cooling tower/condenser chlorination is limited to 2 hours/day/unit. Simultaneous discharge of TRC attributable to cooling tower/condenser chlorination is prohibited.

3. During the period beginning effective date and lasting through November 30, 2006, the permittee is authorized to discharge from outfall(s) serial number(s) 01B - Ash Transport Bleedoff (includes 03E Wastewater Basins Units 1, 2, 3 and 4, Low Volume Waste).

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location*
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Bleedoff
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	Bleedoff

* Samples are to be taken at the ash transport bleedoff line prior to combination with any other wastewater stream.

4. During the period beginning effective date and lasting through November 30, 2006, the permittee is authorized to discharge from outfall(s) serial number(s) 01C and 01D - Units 3 and 4 Cooling Tower Overflows/Basin Drains.

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

Effluent Characteristic	Discharge Limitations Units (Specify) (mg/l)				Monitoring Requirements		
	Avg.	Inst. Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil & Grease (O & G)	-	-	15	20	2/Month	Grab	Overflow
Free Available Chlorine (FAC)	0.2	0.5	-	-	1/Week	Multiple Grabs	Overflow
Total Residual Chlorine (TRC)	-	-	-	-	1/Week	Multiple Grabs	Overflow
TRC Time (minutes/day/unit)	-	-	-	120	1/Week	Multiple Grabs	Overflow
Total Chromium	-	-	-	0.2	1/Year	Grab	Overflow
Total Zinc	-	-	-	1.0	1/Year	Grab	Overflow

TSS and O & G are required for basin drain discharges. FAC, TRC, TRC Time, chromium, and zinc are required for cooling tower overflow discharges.

Multiple grab samples are to be collected on 15 minute intervals during periods of FAC and TRC discharges attributable to cooling tower/condenser chlorination. Intervals are to be once per day during FAC and TRC discharges attributable to continuous service water chlorination. Samples are to be taken before each individual cooling tower overflow combines with waste streams from other sources.

All numerical discharge limitations and monitoring requirements apply to the individual cooling tower overflow from each generating unit. The limitations of 0.2/0.5 mg/l of FAC apply to FAC discharge attributable to cooling tower/condenser chlorination (i.e.,effluent concentration of FAC above that due to continuous service water system chlorination). Time of discharge of TRC attributable to cooling tower/condenser chlorination is limited to 2 hours/day/unit. Simultaneous discharge of TRC attributable to cooling tower/condenser chlorination is prohibited.

5. During the period beginning effective date and lasting through November 30, 2006, the permittee is authorized to discharge from outfall(s) serial number(s) 02 - Detention Pond (I Pond) and 02A - I Pond Bottom Drain; Discharges to Berry Creek (includes 02B, Fire Training Runoff and 02C, NPDES Basin Emergency Overflow).

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Residual Chlorine (TRC)[1]		-	-	-	1/Day	Grab	Final Discharge[3]

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per month by a grab sample at the final discharge to Berry Creek or at the bottom drain when discharging.

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

(1) Monitoring of TRC is required only when continuous service water chlorination for controlling asiatic clams coincides with discharge from the NPDES Basin Emergency Overflow (02C) to I Pond.

(2) Monitoring for pH is required only when the NPDES Basin Emergency Overflow (02C) is discharging to I pond.

(3) Final discharge or bottom drain when discharging.

6. During the period beginning effective date and lasting through November 30, 2006, the permittee is authorized to discharge from outfall(s) serial number(s) 04 - Service Water Final Discharge to Lake Juliette.

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Temperature	-	-	-	-	1/Quarter	Grab	*
Total Residual Chlorine (TRC)		-	-	-	1/Quarter	Grab	*

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

* Temperature will be monitored and reported for the plant intake and the discharge. TRC will also be monitored and reported for the discharge. The temperature difference ("ΔT") between the intake and discharge temperature shall be calculated and entered on the monitoring report. The discharge temperature and TRC are the temperature and TRC recorded at a point not more than 50 feet from the discharge pipe outlet at a depth of 3 feet or other locations approved by the Division.

7. During the period beginning effective date and lasting through November 30, 2006, the permittee is authorized to discharge from outfall(s) serial number(s) 05 and 06 - Units 1 and 2 Cooling Tower Overflows/Basin Drains to Lake Juliette.

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

Effluent Characteristic	Discharge Limitations Units (Specify) (mg/l)					Monitoring Requirements		
	Avg.	Inst. Max.	Daily Avg.	Daily Max.		Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-		-	-	-
Total Suspended Solids (TSS)	-	-	30	100		2/Month	Grab	Overflow
Oil & Grease (O & G)	-	-	15	20		2/Month	Grab	Overflow
Free Available Chlorine (FAC)	0.2	0.5	-	-		1/Week	Multiple Grabs	Overflow
Total Residual Chlorine (TRC)	-	-	-	-		1/Week	Multiple Grabs	Overflow
TRC Time (minutes/day/unit)	-	-	-	120		1/Week	Multiple Grabs	Overflow
Total Chromium	-	-	-	0.2		1/Year	Grab	Overflow
Total Zinc	-	-	-	1.0		1/Year	Grab	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 sampling. There shall be no discharge of floating solids or visible foam in other than trace amounts.

TSS, O & G and pH are required for basin drain discharges. FAC, TRC, TRC Time, chromium, zinc, and pH are required for cooling tower overflow discharges.

Multiple grab samples are to be collected on 15 minute intervals during periods of FAC and TRC discharges attributable to cooling tower/condenser chlorination. Intervals are to be once per day during FAC and TRC discharges attributable to continuous service water chlorination. Samples are to be taken before each individual cooling tower overflow combines with waste streams from other sources.

All numerical discharge limitations and monitoring requirements apply to the individual cooling tower overflow from each generating unit. The limitations of 0.2/0.5 mg/l of FAC apply to FAC discharge attributable to cooling tower/condenser chlorination (i.e. effluent concentration of FAC above that due to continuous service water system chlorination). Time of discharge of TRC attributable to cooling tower/condenser chlorination is limited to 2 hours/day/unit. Simultaneous discharge of TRC attributable to cooling tower/condenser chlorination is prohibited.

8. During the period beginning effective date and lasting through November 30, 2006, the permittee is authorized to discharge from outfall(s) serial number(s) 07 - Settling Pond Emergency Overflow to Lake Juliette (Ash Transport Water).

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency*	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	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 sampling.*

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

* Monitoring for TSS, O&G, and pH is required only when an overflow is occurring.

9. During the period beginning effective date and lasting through November 30, 2006, the permittee is authorized to discharge from outfall(s) serial number(s) 08 - Employee Car Wash, 09 Service Water Pump Seal Water, 10 Service Water Screen Backwash, 12 Condensate/Filtered Water/Potable Water Tank Overflows discharging to Lake Juliette, and 11 River Intake Pump Seal Water discharging to the Ocmulgee River.

   Such discharges shall be limited as specified below:

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

   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.

10. During the period beginning effective date and lasting through November 30, 2006, the permittee is authorized to discharge from outfall(s) serial number(s) 13 and 14 - Emergency Overflows to Lake Juliette (Low Volume Wastes) from Units 1 and 2 Wastewater Basin and Units 3 and 4 Wastewater Basin.

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency*	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	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 sampling.*

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

* Monitoring for TSS, O&G, and pH is required only when an overflow 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:

Effluent limitations are effective upon issuance of this permit.

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
Industrial Wastewater 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 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.

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.

B. 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) 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.

26. 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 (O3I, 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 (03I, 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. Neither free available chlorine (FAC) nor total residual chlorine (TRC) 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 Director that the units in a particular location cannot operate at or below this level of chlorination. The permittee has demonstrated the need to continuously chlorinate the service water system to control asiatic clams. The present intent is to chlorinate the service water periodically from April through October, five days per month for 24 hours per day at an initial level of 1.0 mg/l FAC. Other months, longer durations, and lower FAC levels may be used. This chlorination practice will result occasionally in the discharge of FAC or TRC from each cooling tower simultaneously and for more than 2 hours per day. The permittee must reduce the chlorine discharge if possible and has performed a study to determine the minimum practicable chlorine levels,

frequencies and duration of continuous chlorination for the service water system to adequately control asiatic clams.

5. In accordance with 40 CFR 423.11(k), the free available chlorine (FAC) average means the average over any individual chlorine release period of 2 hours per day per unit. The FAC 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 FAC and TRC discharges. The results shall be reported in a suitably concise form.

6. In accordance with 40 CFR 423.13(d)(3), the permittee shall certify every two years in the flow characterization study that no priority pollutant other than chromium or zinc is above detectable limits in outfall 01A, 01C, 01D, 05 and 06 (cooling tower blowdowns or overflows). This certification may be based on manufacturers' certifications or engineering calculations.

7. 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.

8. 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.

9. Once every two years, the permittee shall submit to the Director flow monitoring and characterization information regarding the various waste streams.

10. All sewage treatment plants (STP) must be properly operated and maintained. This applies to 03A No. 2 STP, 03B No. 4 STP, and 03C, No. 1 STP.

11. Summary of flow characterization study requirements from preceding pages.

    a. Metal cleaning waste treatment and disposal procedures.

    b. Flow determination of various waste streams.

    c. Cooling tower blowdown priority pollutant certification per 40 CFR 423.13(d)(3).

12. The provisions of 40 CFR 122.41(l)(6)(iii) regarding waiver of the 5 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. 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.

15. 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.

16. The best management practices plan for "Macrofouling and Biofouling Control" dated July 26, 2001 is hereby approved and incorporated in this permit. The plan may be modified upon written approval by the Division.

17. The permittee is authorized to discharge storm water 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.

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. 14. above.

BEST MANAGEMENT PRACTICES PLAN

Georgia Power Company – Plant Scherer

NPDES Permit No. GA0035564
Macrofouling and Biofouling Control
Revision 2.0
July 26, 2001

1.0 INTRODUCTION

1.1 Basis

This BMP has been developed in accordance with Part II.B.13, Part III.B.4, and Part III.B.11 of the plant's NPDES Permit. This BMP addresses the use of biocides to control macrofouling and biofouling in the plant's cooling water systems. Upon approval by the Division and implementation by the plant, it will become part of the NPDES Permit for the site.

1.2 Plant Site

Plant Scherer is composed of four generating units with a combined nameplate rating of 3272 Megawatts. All units are currently in commercial operation. Cooling water and service water for all units is provided from Lake Juliette. All units utilize closed cycle condenser cooling. The main unit cooling water flow is 260,000 gpm per unit. A fraction of the flow is discharged as blowdown. The average blowdown flow is 6,791 gpm per unit. This discharges into a holding basin with the service water discharge of 2,500 gpm and the recycle blowdown of 10,600 gpm. Bulk water capacity of each unit's cooling tower system is 4.2 million gallons.

2.0 PROBLEM DESCRIPTION

2.1 Macrofouling

Various organisms can cause severe problems in generating plant water systems, depending on the plant geographic location, prevailing local conditions and plant specific design factors. The Asiatic clam (Corbicula fluminea) is capable of blocking small heat exchanger tubes and even plugging larger diameter pipes with low flow velocities. Furthermore, once the organism is dead the relic shells can still cause blockages. Due to it's life cycle, adaptability, and resistance to control methods it is extremely difficult to eliminate from water systems once it becomes established. Current control methods include the use of biocides, physical cleaning of affected piping, straining of intake water, and heat treatment. Each of these control methods has limitations on effectiveness.

Slime and algae growths have always been a problem in cooling water systems. The biological growths tend to entrain silt and clays, which further foul the surface and will in turn provide more substrate for biological growth. The weight of this type of fouling has caused the failure and collapse of cooling tower fill. Reduced cooling efficiency penalizes the operation of system turbines.

Concern is growing over the likely invasion of the Zebra mussel (Dreissena polymorpha). Experience at other utilities, as the organism continues it's spread, prove that control is extremely difficult with conventional methods and is not entirely successful. Once attached to the substrate, the mussel is not dislodged and may become the host substrate for future colonization. This leads to further blockage of the cooling system.

2.2 Site Problem

Plant Scherer has biofouling problems with slimes, algae, and Asiatic clams. They are known to be present in the cooling water source. Algae and slimes are believed to be the dominant causes of blockage in the cooling tower fill bundles. The clams are often found in plant systems (i.e. oil coolers, auxiliary heat exchangers, low velocity piping, etc.). It is obvious that the plant is subject to infestation and is in need of a control program.

3.0 CONTROL PROGRAM

3.1 Use of Biocides

While physical and mechanical methods of control will still be employed routinely to reduce the effects of biofouling, routine treatments of biocide will likely be required to maintain efficiency of heat exchangers. An oxidizing biocide such as chlorine has long been the biocide of choice because of it's proven effectiveness, ease of application, and cost. Increasing restrictions on the use, storage, and handling of chlorine have prompted us to seek alternate control methods. Additionally, oxidizing biocides increase the rate of corrosion in copper bearing metals which are common in heat exchangers.

Non-oxidizing biocides, such as quaternary amines, have been found to be effective on certain organisms. Quaternary amines are also effective on algae. Other advantages of the non-oxidizers are reduced frequency of application, and ready absorption of the active ingredient onto mud, silt, and clay, which exhausts the toxicity.

3.1.1 Service Water Routine Biological Control

Chlorine will be used for routine control of microbiological growth in the service water systems. Chlorine will be fed intermittently throughout the year to maintain control.

3.1.2 Service Water Asiatic Clam / Zebra Mussel Control

Chlorine will be used for seasonal control of Asiatic clams and Zebra mussels in the service water systems. Chlorine will be utilized as referenced in the facility NPDES Permit Part III.B.4.

3.1.3 Cooling Tower Routine Biological Control

Either an oxidizing or a non-oxidizing biocide will be used to control the growth of slime and algae in the cooling tower systems. If necessary, both types of biocide programs may be fed to maintain performance. The primary program will be Betz Powerline 3625 or an equivalent, a non-oxidizing biocide containing the quaternary amine ADBAC (n-alkyl dimethyl benzyl ammonium chloride). The secondary program will be chlorine, either gaseous or liquid.

3.2 Application Rates and Injection Points

3.2.1 Service Water Routine Biological Control

As a general rule, chlorine will be fed to the main service water headers just downstream from the pump intake bay. The biocide will be fed to each service water system (Units 1&2 and Units 3&4) to achieve a minimum free residual oxidant level of 0.2 ppm. Applications will normally be daily for one hour when the water temperature is above 60F and three times per week for one hour during winter months. It is anticipated that one hour of biocide application will be sufficient to control biological growth, but it may be applied for up to two hours per unit per day.

3.2.2 Service Water Asiatic Clam / Zebra Mussel Control

Chlorine will be fed to the service water headers as above. Each service water system (i.e. Units 1&2 and Units 3&4) will be treated to insure there is no toxicity in the discharge streams. (Reference Part III.B.4)

3.2.3 Cooling Tower Routine Biological Control

The non-oxidizing biocide will be fed to the cooling tower basin. Biocide dosage and frequency will vary based on seasonal conditions and system demand, ranging from 2 to 7.5 ppm active quaternary amine. Feed frequency will range from one to three times per week as needed, and cooling towers will be treated independently. As an alternative, chlorine will be fed to the cooling water in place or in addition to the non-oxidizing biocide. Chlorine dosage and frequency will vary based on seasonal conditions and system demand.

3.3 Elimination of Biocide from System

3.3.1 Service Water Routine Biological Systems

The biocide program proposed will not require a detoxification.

3.3.2 Service Water Asiatic Clam / Zebra Mussel Control

The biocide program proposed will not require a detoxification.

3.3.3 Cooling Tower Routine Biological Control

During non-oxidizing biocide feed the cooling tower blowdown will be closed and will remain closed until tests show that the product concentration in the tower basin is below the detection limit of 0.5 ppm. Bentonite clay will be kept on-hand to allow for detoxification of any inadvertent overflow. When chlorine is used for biocide treatment, the discharge from the cooling tower will be controlled as currently limited in the NPDES Permit for the site.

3.4 Effects in System

3.4.1 Routine Service Water Treatment

Microbiological growth in the service water coolers and heat exchangers will be minimized, thereby improving overall heat transfer and cooling efficiency. Reduced microbiological growth in the service water systems will also improve microbiological control in the systems supplied by service water, including the water treatment plants and cooling towers.

3.4.2 Asiatic Clams / Zebra Mussel Treatment

Macrofouling organisms will be eliminated throughout the water system treated. This will reduce maintenance requirements and enhance heat exchange efficiency.

3.4.3 Cooling Tower Treatment

Algae, slime, and microbiological growth will be minimized throughout the cooling tower systems, resulting in improved results condenser performance and reduced plugging of the tower fill.

3.5 Other Biocides and Methods of Control

It is expected that this method of treatment and control will be fully effective in controlling the biofouling experienced by this plant. However implementation of this plan does not preclude the use of other biocides or control methods, if they are shown to be equally beneficial. This plan will be revised in accordance with Section 7.0, if other biocides are found to be necessary.

4.0 MONITORING PROGRAM

4.1 Sample Collection

4.1.1 Routine Service Water Treatment

Samples will be collected from the service water system consistent with the facility NPDES Permit.

The analytical method for determining the chlorine concentration is amperometric titration, 40 CFR Part 136 Method No. 31, and also listed as EPA Method 330.1. The alternative measurement method will be EPA Method 330.4, DPD.

4.1.2 Asiatic Clam / Zebra Mussel Treatment

Samples will be collected from the service water system consistent with the facility NPDES Permit.

Final plant discharge chlorine levels will not exceed limits as set in the existing NPDES Permit.

The analytical method for determining the chlorine concentration is amperometric titration, 40 CFR Part 136 Method No. 31, and also listed as EPA Method 330.1. The alternative measurement method will be EPA Method 330.4, DPD.

4.1.3 Condenser Cooling Water Treatment

When a quaternary amine biocide is used, concentration will be measured within the first two hours after beginning treatment. No discharge will be allowed if the concentration is in excess of 0.05 ppm.

The analytical method for determining concentration of the non-oxidizing biocide is the Betz Clam-Trol CT-2 Methyl Orange Method. The detection limit (MDL) for this method is 0.05 ppm as Powerline 3625 (0.025 ppm active ADBAC quat). Other analytical methods, which meet or improve the (MDL), may be utilized without modification of this plan. The Division will be notified of any change in analytical methods. QA/QC data such as instrument calibration curves and instrument maintenance records will be retained for review by the Division.

In the event of an inadvertent overflow, the bentonite clay product will be added and samples will be collected once per hour at the plant discharge to insure the biocide is not detectable.

4.2 Reporting of Monitoring Results

Biocide concentration in the service water systems and cooling tower basins will be measured and recorded each date that they are treated, as outlined in Section 4.1. Results from samples representative of the discharge will be reported on the NPDES Quarterly Operation Monitoring Report (OMR) in a suitably concise format. Results of operational analyses will be retained for twelve months and will be available for review by the Division.

4.3 Equipment Inspections

To evaluate the effectiveness of the control programs, the main condensers, auxiliary coolers, and systems treated will be periodically inspected for the presence of microbiological growth and macrofouling organisms or relics of organisms.

5.0 OPTIMIZATION PROGRAM

5.1 Equipment Maintenance

All associated equipment and monitoring instruments will be maintained in proper operating conditions at all times.

5.2 Biocide Usage

The amount of biocide used will be re-evaluated periodically to determine if lesser amounts can be effectively utilized. This determination will be based on the results of plant inspections, information from other facilities, plant performance data, and the current scientific literature. If it appears that lower concentrations can effectively control fouling in the systems, then concentrations will be reduced accordingly and more intense inspections will be performed to document the effectiveness. If fouling is found subsequent to any reductions, the concentrations may be increased to the initial levels.

6.0 NPDES PERMIT CONDITIONS

6.1 Incorporation of BMP into Permit

Upon approval by the Division and implementation by the plant, the plan will be incorporated into the NPDES Permit for the facility.

7.0 REVISIONS

7.1 Revising the BMP

This BMP may be revised if necessary. The Plant Manager must approve the revision. A copy of the revised plan will be furnished to the Manager of Environmental Affairs. The Environmental Protection Division must approve any revision prior to implementation.

Approved for implementation: Date: 7/27/01

Plant Manager: Daniel Morton

Georgia Department of Natural Resources
GEORGIA ENVIRONMENTAL PROTECTION DIVISION
Permitting, Compliance and Enforcement Program
4220 International Parkway, Suite 101
Atlanta, Georgia 30354
404/362-2680
FAX 404/362-2691

December 27, 2007

Mr. Charles H. Huling, P.E.
Vice President, Environmental Affairs
Georgia Power Company
Bin 10221
241 Ralph McGill Boulevard, NE
Atlanta, GA 30308-3374

RE: Plant Scherer
NPDES Permit No. GA0035564

Dear Mr. Huling:

The Environmental Protection Division (EPD) has received your application for reissuance of 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 Monroe County, Georgia Courthouse. Within 10 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 upon posting to indicate that you have satisfied the requirements of this letter.

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 Mr. Tom Hopkins at 404-362-2680.

Sincerely,

Dominic J. Weatherill
Unit Coordinator
Industrial Wastewater Unit

DJW:th
Attachments

cc: Mr. Wayne Aronson (w/attachments)
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, 241 Ralph McGill Boulevard, N.E., Atlanta, Georgia 30308, NPDES Permit No. GA 0035564 for its Plant Scherer steam electric generating facility located at 10986 Highway 87 in Juliette, Monroe County, Georgia 31046. Fifteen discharges consisting of cooling tower blowdown/overflow, flue gas desulfurization, ash pond water, service water, and miscellaneous low volume wastewaters enter Lake Juliette, the Ocmulgee River, and tributaries in the Ocmulgee 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. Additional information regarding public hearing procedures is available, by writing the EPD at the address noted below.

A fact sheet or copy of the draft permit is available by writing the Environmental Protection Division. The permit application, draft permit, comments received, and other information are available for review at Watershed Protection Branch, 4220 International Parkway, Suite 101, Atlanta, Georgia 30354, between the hours of 9:00 a.m. and 4:00 p.m., Monday through Friday. For additional information contact: Ms. Marzieh Shahbazaz, Permitting, Compliance and Enforcement Program, Phone (404) 362-2680.

PERMIT NO. GA0035564

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

Plant Scherer (SIC 4911)
10986 Highway 87
Juliette, Monroe County, Georgia 31046

to receiving waters

Berry Creek, Lake Juliette (Rum Creek) and the Ocmulgee River (Ocmulgee 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 _____.

This permit and the authorization to discharge shall expire at midnight, _____.

Signed this _____ day of _____, 2008.

_____
Director,
Environmental Protection Division

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning effective date and lasting through _____, the permittee is authorized to discharge from outfall(s) serial number(s) 01 - Final Plant Discharge: Combined discharge of outfalls 01A, 01B, 01C, 01D, and 01E to the Ocmulgee River.

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day(MGD)	-	-	-	-	-	-	-
Total Residual Chlorine (TRC)		-	-	-	1/Day*	Grab	Final Discharge

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per month by a grab sample of the final discharge to the Ocmulgee River.

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

* Monitoring of TRC is required only during continuous service water chlorination for controlling asiatic clams.

2. During the period beginning effective date and lasting through _____, the permittee is authorized to discharge from outfall(s) serial number(s) 01Z - Alternate Final Plant Discharge: Combined discharge of outfalls 01A, 01B, 01C, 01D, and 01E to Lake Juliette.**

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day(MGD)	-	-	-	-	-	-	-
Total Residual Chlorine (TRC)		-	-	-	1/Day*	Grab	Final Discharge

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per month by a grab sample of the final discharge to Lake Juliette.

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

* Monitoring of TRC is required only during continuous service water chlorination for controlling asiatic clams.

** See Part III, Special Requirements, regarding the Lake Juliette Drought Contingency Plan.

3. During the period beginning effective date and lasting through _____, the permittee is authorized to discharge from outfall(s) serial number(s) 01A - Cooling Tower Blowdown for Units 1, 2, 3 and 4.

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

Effluent Characteristic	Discharge Limitations Concentration Based (mg/l)			Monitoring Requirements		
	Daily Max.	Avg.	Inst. Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-
Free Available Chlorine (FAC)	-	0.2	0.5	1/Week	Multiple Grabs	Blowdown Line
Total Residual Chlorine (TRC)	-	-	-	1/Week	Multiple Grabs	Blowdown Line
TRC Time (minutes/day/unit)	120	-	-	1/Week	Multiple Grabs	Blowdown Line
Total Residual Chlorine (TRC)	-	-	-	1/Week	Multiple Grabs	Service Water
Total Chromium	0.2	-	-	-	Grab	Blowdown Line
Total Zinc	1.0	-	-	-	Grab	Blowdown Line

Multiple grab samples are to be collected on 15 minute intervals during periods of FAC and TRC discharges attributable to cooling tower/condenser chlorination. Intervals are to be once per day during FAC and TRC discharges attributable to continuous service water chlorination. Samples are to be taken before each individual cooling tower blowdown combines with waste streams from other sources.

All numerical discharge limitations and monitoring requirements apply to the individual cooling tower blowdown from each generating unit. The limitations of 0.2/0.5 mg/l of FAC apply to FAC discharge attributable to cooling tower/condenser chlorination (i.e. effluent concentration of FAC above that due to continuous service water system chlorination). Time of discharge of TRC attributable to cooling tower/condenser chlorination is limited to 2 hours/day/unit. Simultaneous discharge of TRC attributable to cooling tower/condenser chlorination is prohibited.

4. During the period beginning effective date and lasting through _____, the permittee is authorized to discharge from outfall(s) serial number(s) 01B - Ash Transport Bleedoff (includes 03E Wastewater Basins Units 1, 2, 3 and 4, Low Volume Waste).

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location*
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Bleedoff
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	Bleedoff

* Samples are to be taken at the ash transport bleedoff line prior to combination with any other wastewater stream.

5. During the period beginning effective date and lasting through _____, the permittee is authorized to discharge from outfall(s) serial number(s) 01C and 01D - Units 3 and 4 Cooling Tower Overflows/Basin Drains.

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

Effluent Characteristic	Discharge Limitations Units (Specify) (mg/l)				Monitoring Requirements		
	Avg.	Inst. Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil & Grease (O & G)	-	-	15	20	2/Month	Grab	Overflow
Free Available Chlorine (FAC)	0.2	0.5	-	-	1/Week	Multiple Grabs	Overflow
Total Residual Chlorine (TRC)	-	-	-	-	1/Week	Multiple Grabs	Overflow
TRC Time (minutes/day/unit)	-	-	-	120	1/Week	Multiple Grabs	Overflow
Total Chromium	-	-	-	0.2	-	Grab	Overflow
Total Zinc	-	-	-	1.0	-	Grab	Overflow

TSS and O & G are required for basin drain discharges. FAC, TRC, TRC Time, chromium, and zinc are required for cooling tower overflow discharges.

Multiple grab samples are to be collected on 15 minute intervals during periods of FAC and TRC discharges attributable to cooling tower/condenser chlorination. Intervals are to be once per day during FAC and TRC discharges attributable to continuous service water chlorination. Samples are to be taken before each individual cooling tower overflow combines with waste streams from other sources.

All numerical discharge limitations and monitoring requirements apply to the individual cooling tower overflow from each generating unit. The limitations of 0.2/0.5 mg/l of FAC apply to FAC discharge attributable to cooling tower/condenser chlorination (i.e. effluent concentration of FAC above that due to continuous service water system chlorination). Time of discharge of TRC attributable to cooling tower/condenser chlorination is limited to 2 hours/day/unit. Simultaneous discharge of TRC attributable to cooling tower/condenser chlorination is prohibited.

6. During the period beginning effective date and lasting through _____, the permittee is authorized to discharge from outfall(s) serial number(s) 02 - Detention Pond (I Pond) and 02A - I Pond Bottom Drain; Discharges to Berry Creek (includes 02B, Fire Training Runoff and 02C, NPDES Basin Emergency Overflow).

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Residual Chlorine (TRC)[1]		-	-	-	1/Day	Grab	Final Discharge[3]

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per month by a grab sample at the final discharge to Berry Creek or at the bottom drain when discharging.

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

(1) Monitoring of TRC is required only when continuous service water chlorination for controlling asiatic clams coincides with discharge from the NPDES Basin Emergency Overflow (02C) to I Pond.

(2) Monitoring for pH is required only when the NPDES Basin Emergency Overflow (02C) is discharging to I pond.

(3) Final discharge or bottom drain when discharging.

7. During the period beginning effective date and lasting through _____, the permittee is authorized to discharge from outfall(s) serial number(s) 04 - Service Water Final Discharge to Lake Juliette.

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Temperature	-	-	-	-	1/Quarter	Grab	*
Total Residual Chlorine (TRC)		-	-	-	1/Quarter	Grab	*

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

* Temperature will be monitored and reported for the plant intake and the discharge. TRC will also be monitored and reported for the discharge. The temperature difference ("ΔT") between the intake and discharge temperature shall be calculated and entered on the monitoring report. The discharge temperature and TRC are the temperature and TRC recorded at a point not more than 50 feet from the discharge pipe outlet at a depth of 3 feet or other locations approved by the Division.

8. During the period beginning effective date and lasting through _____, the permittee is authorized to discharge from outfall(s) serial number(s) 05 and 06 - Units 1 and 2 Cooling Tower Overflows/Basin Drains to Lake Juliette.

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

Effluent Characteristic	Discharge Limitations Units (Specify) (mg/l)				Monitoring Requirements		
	Avg.	Inst. Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil & Grease (O & G)	-	-	15	20	2/Month	Grab	Overflow
Free Available Chlorine (FAC)	0.2	0.5	-	-	1/Week	Multiple Grabs	Overflow
Total Residual Chlorine (TRC)	-	-	-	-	1/Week	Multiple Grabs	Overflow
TRC Time (minutes/day/unit)	-	-	-	120	1/Week	Multiple Grabs	Overflow
Total Chromium	-	-	-	0.2	-	Grab	Overflow
Total Zinc	-	-	-	1.0	-	Grab	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 sampling. There shall be no discharge of floating solids or visible foam in other than trace amounts.

TSS, O & G and pH are required for basin drain discharges. FAC, TRC, TRC Time, chromium, zinc, and pH are required for cooling tower overflow discharges.

Multiple grab samples are to be collected on 15 minute intervals during periods of FAC and TRC discharges attributable to cooling tower/condenser chlorination. Intervals are to be once per day during FAC and TRC discharges attributable to continuous service water chlorination. Samples are to be taken before each individual cooling tower overflow combines with waste streams from other sources.

All numerical discharge limitations and monitoring requirements apply to the individual cooling tower overflow from each generating unit. The limitations of 0.2/0.5 mg/l of FAC apply to FAC discharge attributable to cooling tower/condenser chlorination (i.e. effluent concentration of FAC above that due to continuous service water system chlorination). Time of discharge of TRC attributable to cooling tower/condenser chlorination is limited to 2 hours/day/unit. Simultaneous discharge of TRC attributable to cooling tower/condenser chlorination is prohibited.

9. During the period beginning effective date and lasting through _____, the permittee is authorized to discharge from outfall(s) serial number(s) 07 - Settling Pond Emergency Overflow to Lake Juliette (Ash Transport Water).

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency*	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	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 sampling.*

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

* Monitoring for TSS, O&G, and pH is required only when an overflow is occurring.

10. During the period beginning effective date and lasting through _____, the permittee is authorized to discharge from outfall(s) serial number(s) 08 - Employee Car Wash, 09 Service Water Pump Seal Water, 10 Service Water Screen Backwash, 12 Condensate/Filtered Water/Potable Water Tank Overflows discharging to Lake Juliette, and 11 River Intake Pump Seal Water discharging to the Ocmulgee River.

Such discharges shall be limited as specified below:

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

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.

11. During the period beginning effective date and lasting through _____, the permittee is authorized to discharge from outfall(s) serial number(s) 13 and 14 - Emergency Overflows to Lake Juliette (Low Volume Wastes) from Units 1 and 2 Wastewater Basin and Units 3 and 4 Wastewater Basin.

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency*	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	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 sampling.*

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

* Monitoring for TSS, O&G, and pH is required only when an overflow is occurring.

12. During the period beginning effective date and lasting through _____, the permittee is authorized to discharge from outfall(s) serial number(s) 15 - Gypsum Stack Emergency Overflow to Berry Creek.

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency*	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	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 sampling.*

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

* Monitoring for TSS, O&G, and pH is required only when an overflow 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:

Effluent limitations are effective upon issuance of this permit.

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
Industrial Wastewater Unit
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 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.

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.

B. 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) 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.

26. 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 (O3I, 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 (03I, 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. Neither free available chlorine (FAC) nor total residual chlorine (TRC) 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 Director that the units in a particular location cannot operate at or below this level of chlorination. The permittee has demonstrated the need to continuously chlorinate the service water system to control asiatic clams. The present intent is to chlorinate the service water periodically from April through October, five days per month for 24 hours per day at an initial level of 1.0 mg/l FAC. Other months, longer durations, and lower FAC levels may be used. This chlorination practice will result occasionally in the discharge of FAC or TRC from each cooling tower simultaneously and for more than 2 hours per day. The permittee must reduce the chlorine discharge if possible and has performed a study to determine the minimum practicable chlorine levels,

frequencies and duration of continuous chlorination for the service water system to adequately control asiatic clams.

5. In accordance with 40 CFR 423.11(k), the free available chlorine (FAC) average means the average over any individual chlorine release period of 2 hours per day per unit. The FAC 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 FAC and TRC discharges. The results shall be reported in a suitably concise form.

6. In accordance with 40 CFR 423.13(d)(3), instead of the monitoring specified, the permittee shall certify every two years in the flow characterization study that no priority pollutant is above detectable limits in outfall 01A, 01C, 01D, 05 and 06 (cooling tower blowdowns or overflows). This certification may be based on manufacturers' certifications or engineering calculations.

7. 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.

8. 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.

9. Once every two years, the permittee shall submit to the Director flow monitoring and characterization information regarding the various waste streams.

10. All sewage treatment plants (STP) must be properly operated and maintained. This applies to 03A No. 2 STP, 03B No. 4 STP, and 03C, No. 1 STP.

11. Summary of flow characterization study requirements from preceding pages.

    a. Metal cleaning waste treatment and disposal procedures.

    b. Flow determination of various waste streams.

    c. Cooling tower blowdown priority pollutant certification per 40 CFR 423.13(d)(3).

12. The provisions of 40 CFR 122.41(l)(6)(iii) regarding waiver of the 5 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. 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.

15. 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.

16. The best management practices plan for "Macrofouling and Biofouling Control" dated October 24, 2006 is hereby approved and incorporated in this permit. The plan may be modified upon written approval by the Division.

17. The permittee is authorized to discharge storm water 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.

18. The Lake Juliette Drought Contingency Plan submitted on December 7, 2007 is hereby approved and incorporated in this permit. The plan may be modified upon written approval by the Division.

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. 14. above.

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

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

Tel 404.506.7716
Fax 404.506.1499
chhuling@southernco.com

GEORGIA POWER
A SOUTHERN COMPANY

May 24, 2006

MAY 26 2006

Dr. Carol A. Couch
Director
Environmental Protection Division
Suite 1152 East
205 Butler Street, S.E.
Atlanta, Georgia 30334

RE: Plant Scherer
NPDES Permit No. GA0035564
Application for Permit Renewal

Dear Dr. Couch:

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

1. Line drawing showing the wastewater streams and water flow through the facility.

2. An aerial photo/NPDES outfall location diagram showing the locations of process wastewater discharges and commingled storm water discharges.

3. A segment of the USGS 7.5 minute topographic map showing the locations of the two primary outfalls, outfall numbers 01 and 04, as well as other relevant features.

4. An evaluation demonstrating that the Plant Scherer ash treatment systems have adequate storage volume to meet EPA's co-treatment guidelines through the next permit term.

5. A tabulation of the monitoring results for all chrome and zinc sampling conducted during the current permit term. We request EPD consider removing from the permit the annual monitoring of chrome and zinc in the several waste streams that contain cooling tower water. The highest chrome result has been 0.0042 mg/l and the highest zinc result was 0.020 mg/l. The current permit limits are consistent with the Steam Electric Effluent Guidelines, at 0.2 mg/l for chrome and 1.0 mg/l for zinc. We no longer use cooling tower water treatment chemicals containing chrome and zinc and can certify this on each of the biennial Flow Monitoring and Characterization Studies.

6. A package of 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. All four Plant Scherer units already employ closed loop condenser cooling water systems and, therefore, have met the applicable performance standards using compliance alternative number one, 125.94(a)(1)(i).

There have been no permit-related changes to this facility since the current permit was issued on January 30, 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, modified as discussed in item 5 above.

If you need additional information or have questions regarding this matter, please contact Bill Evans at 404-506-7031.

Sincerely,

Charles H. Huling

WRE/
Attachments

xc: Jeffrey H. Larson, Manager, Permitting, Compliance and Enforcement Program

Georgia Department of Natural Resources

2 Martin Luther King, Jr. Drive, S.E., Suite 1152 East Tower, Atlanta, Georgia 30334-9000
Noel Holcomb, Commissioner
Carol A. Couch, Ph.D., Director
Environmental Protection Division
404/656-4713

November 29, 2006

Mr. Charles H. Huling, P.E.
Vice President, Environmental Affairs
Georgia Power Company
Bin No. 10221
241 Ralph McGill Blvd.
Atlanta, Georgia 30308-3374

RE: Georgia Power Co. - Plant Scherer
NPDES Permit No. GA0035564

Dear Mr. Huling:

EPD has initiated a basin wide permitting strategy whereby permits are reissued within groups of river basins during specific years. As a part of that process, permits are extended until such time they can be reissued within that basin grouping.

The Environmental Protection Division (EPD) has received your application for reissuance of the referenced permit. EPD is hereby extending your permit until such time that it can be reissued within the appropriate river basin group.

Sincerely,

Carol A. Couch, Ph.D.
Director

CAC/ TEH
cc :Environmental Protection Agency

cc: Lisa Peacock, EPD Information Management Unit

cc: Gigi Steele, EPD Municipal Permitting Unit

(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

EPA

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	7	9	6	T/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

MAY 6 2006

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; if 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)		X		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)		X	
	16	17	18		19	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		X	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)		X	
	22	23	24		25	26	27
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)		X		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)		X	
	28	29	30		31	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)		X		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)		X	
	34	35	36		37	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)		X		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)		X	
	40	41	42		43	44	45

III. NAME OF FACILITY

C 1 SKIP PLANT SCHERER

15 16 29 30 69

IV. FACILITY CONTACT

A. NAME & TITLE (*last, first, & title*)	B. PHONE (*area code & no.*)		
C 2 HULING, C. H., VICE PRES., ENVIR. AFFAIRS	404	506	7716
15 16 45	46 48	49 51	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	GA	30308
15 16 40	41 42	47 51

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

C 5 10986 HIGHWAY 87

15 16 45

B. COUNTY NAME

MONROE

16 70

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE
C 6 JULIETTE	GA	31046	N/A
15 16 40	41 42	47 51	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
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; 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: 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	L		
A. NPDES *(Discharges to Surface Water)*	9	N		GA0035564	
D. PSD *(Air Emissions from Proposed Sources)*	9	P		N/A	
B. UIC *(Underground Injection of Fluids)*	9	U		N/A	
E. OTHER *(specify)*	9			N/A	(specify)
C. RCRA *(Hazardous Wastes)*	9	R		N/A	
E. OTHER *(specify)*	9			N/A	(specify)

XI. MAP

Attach to this application a topgraphic map of the area extending to at least one mile beyond property bounderies. 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.

* Plant Scherer is jointly owned by: Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, Florida Power and Light, Jacksonville Electric Authority, Gulf Power Company, and City of Dalton.

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
C. H. Huling, Vice Pres., Envir. Affairs	Charles H. Huling	5/23/06

COMMENTS FOR OFFICIAL USE ONLY

C C

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)*
GAD000612796

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

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

OUTFALL NO. 01

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)	<5	<843					1	mg/l	lb/day	<5		1
b. Chemical Oxygen Demand (COD)	18	3035					1	mg/l	lb/day	<5		1
c. Total Organic Carbon (TOC)	5	843					1	mg/l	lb/day	2		1
d. Total Suspended Solids (TSS)	5	843					1	mg/l	lb/day	<5		1
e. Ammonia *(as N)*	<0.1	<84.3					1	mg/l	lb/day	<0.1		1
f. Flow	VALUE 14,052		VALUE		VALUE		1	gpm		VALUE		
g. Temperature *(winter)*	VALUE n/a		VALUE		VALUE		0	°C		VALUE		0
h. Temperature *(summer)*	VALUE 26.8		VALUE		VALUE		8	°C		VALUE 25.7		8
i. pH	MINIMUM 8.46	MAXIMUM 8.55	MINIMUM	MAXIMUM			4	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)		X	0.2	33.7					1	mg/l	lb/day	<0.1		1
b. Chlorine, Total Residual		X	0	n/a					4	mg/l		0		1
c. Color	X		38	n/a					1	PCU		23		1
d. Fecal Coliform	X		26	n/a					1	col/100 ml		88		1
e. Fluoride (16984-48-8)		X	0.8	134.9					1	mg/l	lb/day	0.2		1
f. Nitrate-Nitrite *(as N)*	X		0.3	50.6					1	mg/l	lb/day	0.6		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)*	X		0.5	84.3					1	mg/l	lb/day	0.5		1
h. Oil and Grease		X	<6	<1012					1	mg/l	lb/day	<6		1
i. Phosphorus (as P) Total (7723-14-0)	X		0.03	5.1					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)	X		164	27,650					1	mg/l	lb/day	14		1
l. Sulfide *(as SO_3)* (14265-45-3)		X	<0.2	<33.7					1	mg/l	lb/day	<0.2		1
m. Sulfite *(as SO_3)* (14265-45-3)		X	<2	<337					1	mg/l	lb/day	<2		1
n. Surfactants	X		<0.1	<16.9					1	mg/l	lb/day	<0.1		1
o. Aluminum, Total (7440-39-3)	X		0.6	101					1	mg/l	lb/day	0.2		1
p. Barium, Total (7440-39-3)	X		0.21	35.4					1	mg/l	lb/day	0.03		1
q. Boron, Total (7440-42-8)	X		0.46	77.6					1	mg/l	lb/day	<0.04		1
r. Cobalt, Total (7440-48-4)		X	<0.04	<6.7					1	mg/l	lb/day	<0.04		1
s. Iron, Total (7439-89-6)	X		0.20	33.7					1	mg/l	lb/day	0.38		1
t. Magnesium, Total (7439-95-4)	X		7.9	1332					1	mg/l	lb/day	2.4		1
u. Molybdenum, Total (7439-98-7)		X	<0.04	<6.7					1	mg/l	lb/day	<0.04		1
v. Manganese, Total (7439-96-5)	X		0.20	33.7					1	mg/l	lb/day	0.04		1
w. Tin, Total (7440-31-5)		X	<0.04	<6.7					1	mg/l	lb/day	<0.04		1
x. Titanium, Total (7440-32-6)		X	<0.1	<16.9					1	mg/l	lb/day	<0.1		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)*	01
GAD000612796	

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 (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	<0.05	<8.4					1	mg/l	lb/day	<0.05		1
2M. Arsenic, Total (7440-38-2)	X		X	<0.03	<5.1					1	mg/l	lb/day	<0.03		1
3M. Beryllium, Total, 7440-41-7	X		X	<0.01	<1.7					1	mg/l	lb/day	<0.01		1
4M. Cadmium, Total (7440-43-9)	X		X	<0.01	<1.7					1	mg/l	lb/day	<0.01		1
5M. Chromium Total (7440-47-3)	X		X	<0.01	<1.7					1	mg/l	lb/day	<0.01		1
6M. Copper, Total (7440-50-8)	X	X		0.08	13.5					1	mg/l	lb/day	<0.02		1
7M. Lead, Total (7439-92-1)	X		X	<0.025	<4.2					1	mg/l	lb/day	<0.025		1
8M. Mercury, Total (7439-97-6)	X		X	<0.0005	<0.08					1	mg/l	lb/day	<0.0005		1
9M. Nickel, Total (7440-02-0)	X		X	<0.02	<3.4					1	mg/l	lb/day	<0.02		1
10M. Selenium, Total (7782-49-2)	X		X	<0.04	<6.7					1	mg/l	lb/day	<0.04		1
11M. Silver, Total (7440-22-4)	X		X	<0.01	<1.7					1	mg/l	lb/day	<0.01		1
12M. Thallium, Total (7440-28-0)	X		X	<0.05	<8.4					1	mg/l	lb/day	<0.05		1
13M. Zinc, Total (7440-66-6)	X		X	<0.02	<3.4					1	mg/l	lb/day	<0.02		1
14M. Cyanide, Total (57-12-5)	X		X	<0.02	<3.4					1	mg/l	lb/day	<0.02		1
15M. Phenols, Total	X		X	<0.1	<16.9					1	mg/l	lb/day	<0. 1		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' 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		X	<0.050	<8.4					1	mg/l	lb/day	<0.050		1
2V. Acrylonitrile (107-13-1)	X		X	<0.050	<8.4					1	mg/l	lb/day	<0.050		1
3V. Benzene (71-43-2)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
4V. Bis(*Chloromethyl*) Ether (542-88-1)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
5V. Bromoform (75-25-2)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
6V. Carbon Tetrachloride(56-23-5)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
7V. Chlorobenzene (108-90-7)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
8V. Chlorodibromomethane (124-48-1)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
9V. Chloroethane (75-00-3)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
10V. 2-Chloroethylvinyl Ether (110-75-8)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
11V. Chloroform (67-66-3)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
12V. Dichlorobromomethane (75-71-8)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
13V. Dichlorodifluoromethane (75-71-8)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
14V. 1,1-Dichloroethane (75-34-3)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
15V. 1,2-Dichloroethane (107-06-2)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
16V. 1,1-Dichloroethylene (75-35-4)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
17V. 1,2-Dichloropropane (78-87-5)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
18V. 1,3-Dichloropropylene (542-75-6)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
19V. Ethylbenzene (100-41-4)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
20V. Methyl Bromide (74-83-9)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
21V. Methyl Chloride (74-87-3)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1

 CONTINUE ON PAGE V-5

CONTINUED FROM PAGE V-4

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
GAD000612796	01

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		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
23V. 1,1,2,2Tetra-chloroethane (79-34-5)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
24V. Tetrachloroethylene (127-18-4)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
25V. Toluene (108-88-3)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
26V. 1,2-Trans-Dichloro-ethylene (156-60-5)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
27V. 1,1,1-Trichloroethane (71-56-6)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
28V. 1,1,2-Trichloroethane (79-00-5)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
29V. Trichloroethylene (79-01-6)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
30V. Trichlorofluoro-methane (75-69-4)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
31V. Vinyl Chloride (75-01-4)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
GC/MS FRACTION — ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
2A. 2,4-Dichlorophenol (120-83-2)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
3A. 2,4-Dimethylphenol (105-67-9)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X		X	<0.050	<8.4					1	mg/l	lb/day	<0.050		1
5A. 2,4-Dinitrophenol (51-28-5)	X		X	<0.050	<8.4					1	mg/l	lb/day	<0.050		1
6A. 2-Nitrophenol (88-75-5)	X		X	<0.050	<8.4					1	mg/l	lb/day	<0.050		1
7A. 4-Nitrophenol (100-02-7)	X		X	<0.050	<8.4					1	mg/l	lb/day	<0.050		1
8A. P-Chloro-M-Cresol (59-50-7)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
9A. Pentachlorophenol (87-86-5)	X		X	<0.020	<3.4					1	mg/l	lb/day	<0.020		1
10A. Phenol (108-95-2)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
11A. 2,4,6-Trichloro-phenol (88-06-2)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1

CONTINUE ON REVERSE

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. Testing Required	b. Believed Present	c. 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	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
2B. Acenaphtylene (208-96-8)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
3B. Anthracene (120-12-7)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
4B. Benzidine (92-87-5)	X		X	<0.080	<13.5					1	mg/l	lb/day	<0.080		1
5B. Benzo *(a)* Anthracene (56-55-3)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
6B. Benzo *(a)* Pyrene (50-32-8)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
7B. 3,4-Benzo-fluoranthene (205-99-2)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
8B. Benzo *(ghi)* Perylene (191-24-2)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
9B. Benzo *(k)*Fluoranthene (207-08-9)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
15B. Butyl Benzyl Phthalate (85-68-7)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
16B. 2-Chloronaphthalene (91-58-7)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
18B. Chrysene (218-01-9)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
20B. 1,2-Dichloro-benzene (95-50-1)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
21B. 1,3-Dichloro-benzene (541-73-1)	X		X	<0.010	<1.7					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
GAD000612796	01

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		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
23B. 3,3-Dichlorobenzidine (91-94-1)	X		X	<0.020	<3.4					1	mg/l	lb/day	<0.020		1
24B. Diethyl Phthalate (84-66-2)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
25B. Dimethyl Phthalate (131-11-3)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
26B. Di-N-Butyl Phthalate (84-74-2)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
27B. 2,4-Dinitrotoluene (121-14-2)	X		X	<0.020	<3.4					1	mg/l	lb/day	<0.020		1
28B. 2,6-Dinitrotoluene (606-20-2)	X		X	<0.020	<3.4					1	mg/l	lb/day	<0.020		1
29B. Di-N-OctylPhthalate (117-84-0)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
30B. 1,2-Diphenyl-hydrazine *(as Azobenzene)* (122-66-7)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
31B. Fluoranthene (206-44-0)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
32B. Fluorene (86-73-7)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
33B. Hexachlorobenzene (118-74-1)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
34B. Hexachlorobutadiene (87-68-3)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
35B. Hexachlorocyclo-pentadiene (77-47-4)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
36B. Hexachloroethane (67-72-1)	X		X	<0.002	<0.3					1	mg/l	lb/day	<0.002		1
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
38B. Isophorone (78-59-1)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
39B. Naphthalene (91-20-3)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
40B. Nitrobenzene (98-95-3)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
41B. N-Nitrosodimethylamine (62-75-9)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		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		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
44B. Phenanthrene (85-01-8)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
45B. Pyrene (129-00-0)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
46B. 1,2,4-Trichlorobenzene (120-82-1)	X		X	<0.010	<1.7					1	mg/l	lb/day	<0.010		1
1P. Aldrin (309-00-2)	X		X	<0.0001	<0.02					1	mg/l	lb/day	<0.0001		1
2P. α-BHC (319-84-6)	X		X	<0.0001	<0.02					1	mg/l	lb/day	<0.0001		1
3P. β-BHC (319-85-7)	X		X	<0.0001	<0.02					1	mg/l	lb/day	<0.0001		1
4P. γ-BHC (58-89-9)	X		X	<0.0001	<0.02					1	mg/l	lb/day	<0.0001		1
5P. δ-BHC (319-86-8)	X		X	<0.0001	<0.02					1	mg/l	lb/day	<0.0001		1
6P. Chlordane (57-74-9)	X		X	<0.0005	<0.08					1	mg/l	lb/day	<0.0005		1
7P. 4,4'-DDT (50-29-3)	X		X	<0.0002	<0.03					1	mg/l	lb/day	<0.0002		1
8P. 4,4'-DDE (72-55-9)	X		X	<0.0002	<0.03					1	mg/l	lb/day	<0.0002		1
9P. 4,4'-DDD (72-54-8)	X		X	<0.0002	<0.03					1	mg/l	lb/day	<0.0002		1
10P. Dieldrin (60-57-1)	X		X	<0.0001	<0.02					1	mg/l	lb/day	<0.0001		1
11P. α-Endosulfan (115-29-7)	X		X	<0.0005	<0.08					1	mg/l	lb/day	<0.0005		1
12P. β-Endosulfan (115-29-7)	X		X	<0.0005	<0.08					1	mg/l	lb/day	<0.0005		1
13P. Endosulfan Sulfate (1031-07-8)	X		X	<0.0005	<0.08					1	mg/l	lb/day	<0.0005		1
14P. Endrin (72-20-8)	X		X	<0.0002	<0.03					1	mg/l	lb/day	<0.0002		1
15P. Endrin Aldehyde (7421-93-4)	X		X	<0.0002	<0.03					1	mg/l	lb/day	<0.0002		1
16P. Heptachlor (76-44-8)	X		X	<0.0001	<0.02					1	mg/l	lb/day	<0.0001		1

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CONTINUED FROM PAGE V-8

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
GAD000612796	01

Form Approved.
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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		X	<0.0001	<0.02					1	mg/l	lb/day	<0.0001		1
18P. PCB-1242 (53469-21-9)	X		X	<0.001	<0.17					1	mg/l	lb/day	<0.001		1
19P. PCB-1254 (11097-69-1)	X		X	<0.001	<0.17					1	mg/l	lb/day	<0.001		1
20P. PCB-1221 (11104-28-2)	X		X	<0.001	<0.17					1	mg/l	lb/day	<0.001		1
21P. PCB-1232 (11141-16-5)	X		X	<0.001	<0.17					1	mg/l	lb/day	<0.001		1
22P. PCB-1248 (12672-29-6)	X		X	<0.001	<0.17					1	mg/l	lb/day	<0.001		1
23P. PCB-1260 (11096-82-5)	X		X	<0.001	<0.17					1	mg/l	lb/day	<0.001		1
24P. PCB-1016 (12674-11-2)	X		X	<0.001	<0.17					1	mg/l	lb/day	<0.001		1
25P. Toxaphene (8001-35-2)	X		X	<0.002	<0.3					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)

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 (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG. VALUE (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)	<5	<91.5					1	mg/l	lb/day	<5		1
b. Chemical Oxygen Demand (COD)	10	183					1	mg/l	lb/day	<5		1
c. Total Organic Carbon (TOC)	2	36.6					1	mg/l	lb/day	2		1
d. Total Suspended Solids (TSS)	<5	<91.5					1	mg/l	lb/day	<5		1
e. Ammonia *(as N)*	<0.1	<1.8					1	mg/l	lb/day	<0.1		1
f. Flow	VALUE 1,527		VALUE		VALUE		1	gpm		VALUE		
g. Temperature *(winter)*	VALUE n/a		VALUE		VALUE		0	°C		VALUE		0
h. Temperature *(summer)*	VALUE 26.7		VALUE		VALUE		8	°C		VALUE 26.5		8
i. pH	MINIMUM 7.11	MAXIMUM 7.40	MINIMUM	MAXIMUM			4	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 (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG. VALUE (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	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANAL-YSES
a. Bromide (24959-67-9)	X		<0.1	<1.8					1	mg/l	lb/day	<0.1		1
b. Chlorine, Total Residual		X	0	n/a					4	mg/l		0		1
c. Color	X		20	n/a					1	PCU		20		1
d. Fecal Coliform	X		116	n/a					1	col/100 ml		160		1
e. Fluoride (16984-48-8)	X		0.2	3.7					1	mg/l	lb/day	0.2		1
f. Nitrate-Nitrite *(as N)*		X	<0.1	<1.8					1	mg/l	lb/day	<0.1		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)*	X		0.7	12.8					1	mg/l	lb/day	<0.4		1
h. Oil and Grease		X	<6	<109					1	mg/l	lb/day	<6		1
I. Phosphorus (as P) Total (7723-14-0)		X	<0.02	<0.4					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)	X		7	128					1	mg/l	lb/day	7		1
l. Sulfide *(as SO_3)* (14265-45-3)		X	<0.2	<3.7					1	mg/l	lb/day	<0.2		1
m. Sulfite *(as SO_3)* (14265-45-3)		X	<2	<36.6					1	mg/l	lb/day	<2		1
n. Surfactants		X	<0.1	<1.8					1	mg/l	lb/day	<0.1		1
o. Aluminum, Total (7440-39-3)		X	<0.1	<1.8					1	mg/l	lb/day	<0.1		1
p. Barium, Total (7440-39-3)	X		0.03	0.5					1	mg/l	lb/day	0.02		1
q. Boron, Total (7440-42-8)		X	<0.04	<0.7					1	mg/l	lb/day	<0.04		1
r. Cobalt, Total (7440-48-4)		X	<0.04	<0.7					1	mg/l	lb/day	<0.04		1
s. Iron, Total (7439-89-6)	X		0.10	1.8					1	mg/l	lb/day	0.08		1
t. Magnesium, Total (7439-95-4)	X		2.2	40.3					1	mg/l	lb/day	2.1		1
u. Molybdenum, Total (7439-98-7)		X	<0.04	<0.7					1	mg/l	lb/day	<0.04		1
v. Manganese, Total (7439-96-5)	X		0.38	7.0					1	mg/l	lb/day	0.08		1
w. Tin, Total (7440-31-5)		X	<0.04	<0.7					1	mg/l	lb/day	<0.04		1
x. Titanium, Total (7440-32-6)		X	<0.1	<1.8					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)*	
GAD000612796	04

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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		X	<0.05	<0.9					1	mg/l	lb/day	<0.05		1
2M. Arsenic, Total (7440-38-2)	X		X	<0.03	<0.5					1	mg/l	lb/day	<0.03		1
3M. Beryllium, Total, 7440-41-7	X		X	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
4M. Cadmium, Total (7440-43-9)	X		X	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
5M. Chromium Total (7440-47-3)	X		X	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
6M. Copper, Total (7440-50-8)	X		X	<0.02	<0.4					1	mg/l	lb/day	<0.02		1
7M. Lead, Total (7439-92-1)	X		X	<0.025	<0.46					1	mg/l	lb/day	<0.025		1
8M. Mercury, Total (7439-97-6)	X		X	<0.0005	<0.01					1	mg/l	lb/day	<0.0005		1
9M. Nickel, Total (7440-02-0)	X		X	<0.02	<0.4					1	mg/l	lb/day	<0.02		1
10M. Selenium, Total (7782-49-2)	X		X	<0.04	<0.7					1	mg/l	lb/day	<0.04		1
11M. Silver, Total (7440-22-4)	X		X	<0.01	<0.2					1	mg/l	lb/day	<0.01		1
12M. Thallium, Total (7440-28-0)	X		X	<0.05	<0.9					1	mg/l	lb/day	<0.05		1
13M. Zinc, Total (7440-66-6)	X	X		0.04	0.7					1	mg/l	lb/day	0.02		1
14M. Cyanide, Total (57-12-5)	X		X	<0.02	<0.4					1	mg/l	lb/day	<0.02		1
15M. Phenols, Total	X		X	<0.1	<1.8					1	mg/l	lb/day	<0.1		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		X	<0.050	<0.9					1	mg/l	lb/day	<0.050		1
2V. Acrylonitrile (107-13-1)	X		X	<0.050	<0.9					1	mg/l	lb/day	<0.050		1
3V. Benzene (71-43-2)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
4V. Bis(*Chloromethyl*) Ether (542-88-1)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
5V. Bromoform (75-25-2)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
6V. Carbon Tetrachloride(56-23-5)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
7V. Chlorobenzene (108-90-7)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
8V. Chlorodibromo-methane (124-48-1)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
9V. Chloroethane (75-00-3)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
11V. Chloroform (67-66-3)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
12V. Dichlorobromo-methane (75-71-8)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
13V. Dichlorodifluoro-methane (75-71-8)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
14V. 1,1-Dichloro-ethane (75-34-3)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
15V. 1,2-Dichloro-ethane (107-06-2)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
16V. 1,1-Dichloro-ethylene (75-35-4)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
17V. 1,2-Dichloro-propane (78-87-5)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
18V. 1,3-Dichloro-propylene (542-75-6)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
19V. Ethylbenzene (100-41-4)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
20V. Methyl Bromide (74-83-9)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
21V. Methyl Chloride (74-87-3)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1

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EPA I.D. NUMBER (copy from Item I of Form 1)	OUTFALL NUMBER
GAD000612796	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 — VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
23V. 1,1,2,2Tetra-chloroethane (79-34-5)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
24V. Tetrachloroethylene (127-18-4)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
25V. Toluene (108-88-3)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
26V. 1,2-Trans-Dichloro-ethylene (156-60-5)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
27V. 1,1,1-Trichloroethane (71-56-6)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
28V. 1,1,2-Trichloroethane (79-00-5)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
29V. Trichloroethylene (79-01-6)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
30V. Trichlorofluoro-methane (75-69-4)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
31V. Vinyl Chloride (75-01-4)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
GC/MS FRACTION — ACID COMPOUNDS										<0.2					
1A. 2-Chlorophenol (95-57-8)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
2A. 2,4-Dichlorophenol (120-83-2)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
3A. 2,4-Dimethylphenol (105-67-9)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X		X	<0.050	<0.9					1	mg/l	lb/day	<0.050		1
5A. 2,4-Dinitrophenol (51-28-5)	X		X	<0.050	<0.9					1	mg/l	lb/day	<0.050		1
6A. 2-Nitrophenol (88-75-5)	X		X	<0.050	<0.9					1	mg/l	lb/day	<0.050		1
7A. 4-Nitrophenol (100-02-7)	X		X	<0.050	<0.9					1	mg/l	lb/day	<0.050		1
8A. P-Chloro-M-Cresol (59-50-7)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
9A. Pentachlorophenol (87-86-5)	X		X	<0.020	<0.4					1	mg/l	lb/day	<0.020		1
10A. Phenol (108-95-2)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
11A. 2,4,6-Trichloro-phenol (88-06-2)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		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		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
2B. Acenaphtylene (208-96-8)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
3B. Anthracene (120-12-7)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
4B. Benzidine (92-87-5)	X		X	<0.080	<1.46					1	mg/l	lb/day	<0.080		1
5B. Benzo *(a)* Anthracene (56-55-3)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
6B. Benzo *(a)* Pyrene (50-32-8)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
7B. 3,4-Benzo-fluoranthene (205-99-2	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
8B. Benzo *(ghi)* Perylene (191-24-2)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
9B. Benzo *(k)*Fluoranthene (207-08-9)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
12B. Bis *(2-Chloro-isopropyl)* Ether (102-60-1)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
15B. Butyl Benzyl Phthalate (85-68-7)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
16B. 2-Chloronaphthalene (91-58-7)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
18B. Chrysene (218-01-9)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
20B. 1,2-Dichloro-benzene (95-50-1)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
21B. 1,3-Dichloro-benzene (541-73-1)	X		X	<0.010	<0.2					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
GAD000612796	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		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
23B. 3,3-Dichlorobenzidine (91-94-1)	X		X	<0.020	<0.4					1	mg/l	lb/day	<0.020		1
24B. Diethyl Phthalate (84-66-2)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
25B. Dimethyl Phthalate (131-11-3)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
26B. Di-N-Butyl Phthalate (84-74-2)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
27B. 2,4-Dinitrotoluene (121-14-2)	X		X	<0.020	<0.4					1	mg/l	lb/day	<0.020		1
28B. 2,6-Dinitrotoluene (606-20-2)	X		X	<0.020	<0.4					1	mg/l	lb/day	<0.020		1
29B. Di-N-OctylPhthalate (117-84-0)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
30B. 1,2-Diphenyl-hydrazine *(as Azobenzene)* (122-66-7)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
31B. Fluoranthene (206-44-0)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
32B. Fluorene (86-73-7)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
33B. Hexachlorobenzene (118-74-1)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
34B. Hexachlorobutadiene (87-68-3)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
35B. Hexachlorocyclo-pentadiene (77-47-4)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
36B. Hexachloroethane (67-72-1)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
38B. Isophorone (78-59-1)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
39B. Naphthalene (91-20-3)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
40B. Nitrobenzene (98-95-3)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
41B. N-Nitrosodimethylamine (62-75-9)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		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		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
44B. Phenanthrene (85-01-8)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
45B. Pyrene (129-00-0)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
46B. 1,2,4-Trichlorobenzene (120-82-1)	X		X	<0.010	<0.2					1	mg/l	lb/day	<0.010		1
GC/MS FRACTION — PESTICIDES															
1P. Aldrin (309-00-2)	X		X	<0.0001	<0.002					1	mg/l	lb/day	<0.0001		1
2P. α-BHC (319-84-6)	X		X	<0.0001	<0.002					1	mg/l	lb/day	<0.0001		1
3P. β-BHC (319-85-7)	X		X	<0.0001	<0.002					1	mg/l	lb/day	<0.0001		1
4P. γ-BHC (58-89-9)	X		X	<0.0001	<0.002					1	mg/l	lb/day	<0.0001		1
5P. δ-BHC (319-86-8)	X		X	<0.0001	<0.002					1	mg/l	lb/day	<0.0001		1
6P. Chlordane (57-74-9)	X		X	<0.0005	<0.01					1	mg/l	lb/day	<0.0005		1
7P. 4,4'-DDT (50-29-3)	X		X	<0.0002	<0.004					1	mg/l	lb/day	<0.0002		1
8P. 4,4'-DDE (72-55-9)	X		X	<0.0002	<0.004					1	mg/l	lb/day	<0.0002		1
9P. 4,4'-DDD (72-54-8)	X		X	<0.0002	<0.004					1	mg/l	lb/day	<0.0002		1
10P. Dieldrin (60-57-1)	X		X	<0.0001	<0.002					1	mg/l	lb/day	<0.0001		1
11P. α-Endosulfan (115-29-7)	X		X	<0.0005	<0.01					1	mg/l	lb/day	<0.0005		1
12P. β-Endosulfan (115-29-7)	X		X	<0.0005	<0.01					1	mg/l	lb/day	<0.0005		1
13P. Endosulfan Sulfate (1031-07-8)	X		X	<0.0005	<0.01					1	mg/l	lb/day	<0.0005		1
14P. Endrin (72-20-8)	X		X	<0.0002	<0.004					1	mg/l	lb/day	<0.0002		1
15P. Endrin Aldehyde (7421-93-4)	X		X	<0.0002	<0.004					1	mg/l	lb/day	<0.0002		1
16P. Heptachlor (76-44-8)	X		X	<0.0001	<0.002					1	mg/l	lb/day	<0.0001		1

CONTINUE ON PAGE V-9

CONTINUED FROM PAGE V-8

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
GAD000612796	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 — PESTICIDES (continued)															
17P. Heptachlor Epoxide (1024-57-3)	X		X	<0.0001	<0.002					1	mg/l	lb/day	<0.0001		1
18P. PCB-1242 (53469-21-9)	X		X	<0.001	<0.02					1	mg/l	lb/day	<0.001		1
19P. PCB-1254 (11097-69-1)	X		X	<0.001	<0.02					1	mg/l	lb/day	<0.001		1
20P. PCB-1221 (11104-28-2)	X		X	<0.001	<0.02					1	mg/l	lb/day	<0.001		1
21P. PCB-1232 (11141-16-5)	X		X	<0.001	<0.02					1	mg/l	lb/day	<0.001		1
22P. PCB-1248 (12672-29-6)	X		X	<0.001	<0.02					1	mg/l	lb/day	<0.001		1
23P. PCB-1260 (11096-82-5)	X		X	<0.001	<0.02					1	mg/l	lb/day	<0.001		1
24P. PCB-1016 (12674-11-2)	X		X	<0.001	<0.02					1	mg/l	lb/day	<0.001		1
25P. Toxaphene (8001-35-2)	X		X	<0.002	<0.04					1	mg/l	lb/day	<0.002		1

PLANT SCHERER
ASH POND CO-TREATMENT EVALUATION
February 2006

A) DRY WEATHER FLOW

This section calculates the maximum flow to the ash pond with no rain present. Drawing a control volume around the pond there are two inflows being waste water pumps and coal pile runoff pumps. Ash recycle is a net of zero because outfall equals inflow.

1a) Ash transport out=ash transport in (net zero)
1b) Plant Scherer has 5 waste water pumps capable of pumping 3000 gpm each for a total of 15,000 gpm. Flow from Scherer drawing E1M6039.
1c Coal pile Run off has 2 pumps each capable of pumping 6000 gpm so the coal pile run off maximum total is 12,000 gpm

Summing these inflows this is 15,000 + 12,000 or 27,000 gpm maximum (This is very non-conservative high flow estimate) The volume is 27,000 gpm * 60 min/hr*24hr/day = 38.88 MGPD

B) RAINFALL RUN-OFF

Watershed Runoff is conservatively estimated at 313 acres and ash pond surface is 490 acres. Summing both total runoff area is 803 acres.

From NOAA, the maximum 10 year, 24 hr storm will give no more than 6 inches of rainfall. Using the very conservative approach that no rainfall soak in the ground, this will give a surface area of (1 acre is 43559.66 sqft) 34978407 sq ft. The 6 inches of rain in a 24 hour period will give this area a volume of ½ ft * 34978407 or 17489204 cuft of water. Since 7.48 gallons are in 1 cubic ft, the volume of this rain in gallons is 130819242 gallons in one day or130.82 MGD

C) REQUIRED WATER VOLUME (FOR CO-TREATMENT)

(A) DRY WEATHER FLOW + (B) RAINFALL RUNNOFF or
38.88 MGD+130.82MGD=169.7 MGD

D) ASH POND REMAINING STORAGE

Ash pond remaining in 2012 is 9,711,155 cubic yards. Since 1 cu yard is 201.974 gallons this is 1961 MGD

E) CONCLUSION

Since at eand of 2012 the projected colume remaining is 1961 MDG (REMAINING STORAGE) >> 169.7 MDG (REQUIRED WATER VOLUME) the ash pond capacity is sufficient.

Scherer chrome and zinc monitoring results

Limits (avg and max are same): Chrome = 0.2 mg/l; Zinc = 1.0 mg/l

Cooling Tower Outfalls limited 1/yr:

01A Blowdown
01C Unit 3 overflow
01D Unit 4 overflow
05 Unit 1 overflow
06 Unit 2 overflow

Date	Outfall	Cr (MDL = 0.0040)	Zn (MDL = 0.0020)
1/9/2006	01A 1	ND	0.0066
1/9/2006	01A 2	ND	0.0055
1/9/2006	01A 3	ND	0.0021
1/9/2006	01A 4	ND	0.0064
5/6/2005	06	ND	0.0048
1/3/2005	01A 1	ND	ND
1/3/2005	01A 2	ND	ND
1/3/2005	01A 3	ND	ND
1/3/2005	01A 4	ND	ND
7/12/2004	06	ND	ND
6/22/2004	05	0.0038 *	ND
5/5/2004	06	ND	ND
3/31/2004	01C	ND	ND
3/13/2004	06	ND	0.0078
1/15/2004	06	ND	0.012
1/12/2004	01A 1	ND	ND
1/12/2004	01A 2	ND	ND
1/12/2004	01A 3	ND	ND
1/12/2004	01A 4	ND	ND
6/18/2003	05	ND	ND
6/6/2003	06	ND	ND
1/28/2003	06	0.0042	0.008
1/6/2003	01A 1	ND	0.019
1/6/2003	01A 2	ND	0.015
1/6/2003	01A 3	ND	0.0076
1/6/2003	01A 4	ND	0.0070
1/4/2002	01A 1	ND	0.016
1/4/2002	01A 2	ND	0.019
1/4/2002	01A 3	ND	0.018
1/4/2002	01A 4	ND	0.020

* MDL = 0.0030 at that time
ND = Not Detected

Cooling Water Intake Structure Information for Plant Scherer

Plant Scherer has a closed-cycle recirculating hyperbolic natural draft cooling tower for each of its four units. Therefore, Plant Scherer meets the applicable 316(b) performance standards under compliance option one of 40 CFR 125.94(a)(1)(i) as follows:

> *(1)(i)You may demonstrate to the Director that you have reduced, or will reduce, your flow commensurate with a closed-cycle recirculating system. In this case, you are deemed to have met the applicable performance standards and will not be required to demonstrate further that your facility meets the impingement mortality and entrainment performance standards specified in paragraph (b) of this section. In addition, you are not subject to the requirements in §§ 125.95, 125.96, 125.97, or 125.98.*

Even though the plant is in compliance with the 316(b) rule, the rule requires submittal of key pieces of 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 Scherer withdraws cooling water from Lake Juliette, a 3,600-acre freshwater impoundment of Rum Creek, constructed by Georgia Power for this purpose in 1982. Lake Juliette has a volume of 115,000 acre-feet at annual mean level and a retention time greater than 60 days. According to 40 CFR 125.93, a reservoir is defined as having an average hydraulic retention time of more than 7 days. In June through September 2005, the average mean water column temperature was 22.6°C.

The elevation of Lake Juliette is dependent upon rainfall and flows in Rum Creek. Additional water is transferred from the nearby Ocmulgee River pumping station as needed. Pumping is done only when the river is high enough to keep downstream users from being affected. Normal elevation is 435 feet, with 414 feet and 440 feet low and high level elevations, respectively.

See the attached topographical map segment (supporting document 3) for the location of Lake Juliette.

Cooling water intake structure data.

The cooling water intake structure is submerged and its entrance is located near the shoreline. The centerline of the pump suction is at 408' (the normal lake level is 435'). It is located on the north side of Lake Juliette at latitude 33°03'14" and longitude 83°48'22". It is equipped with double entry/single exit dual flow traveling screens.

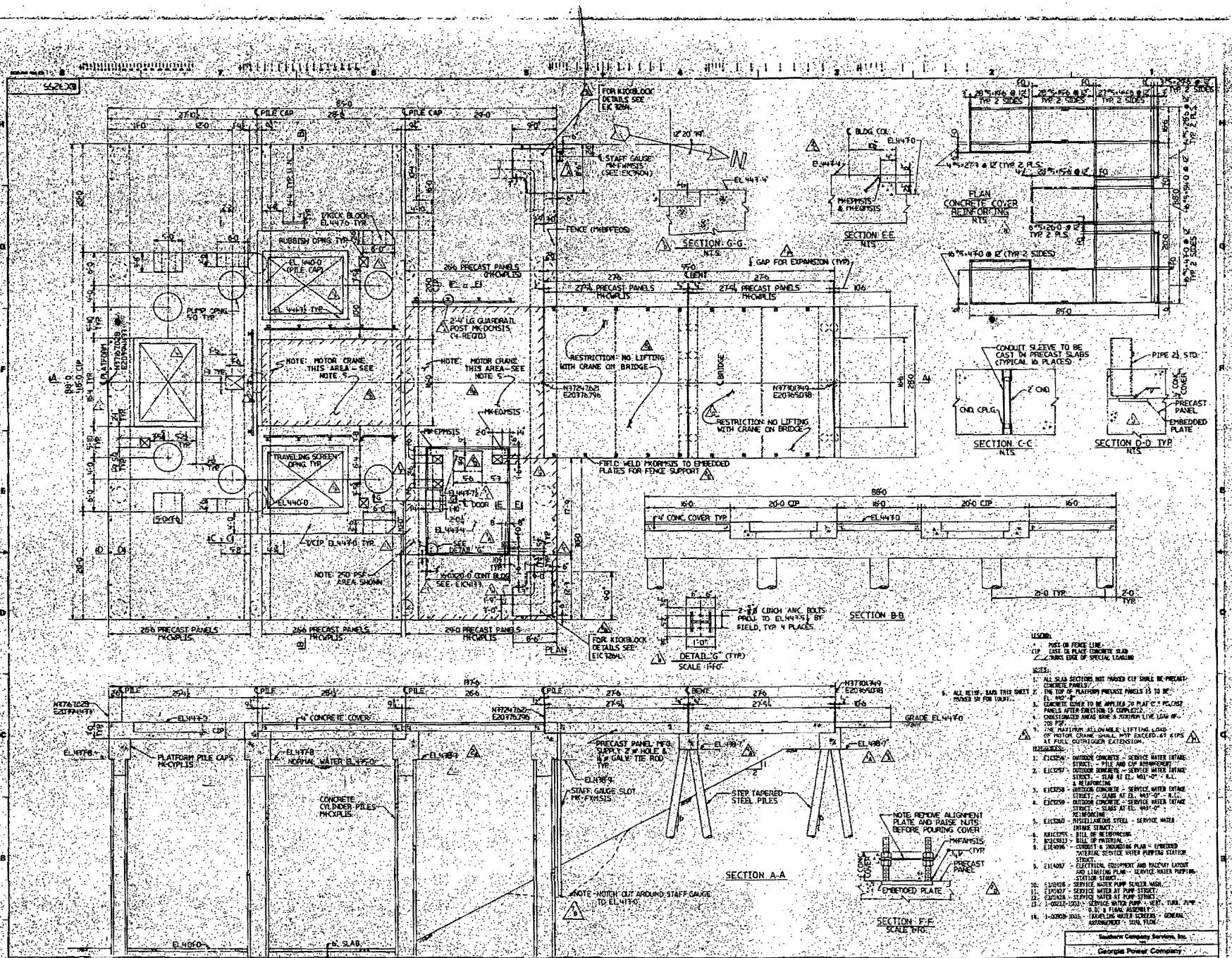
Plant Scherer is a base load facility and at least one unit is in operation approximately 345 days per year (this number could vary, depending on the extent of maintenance

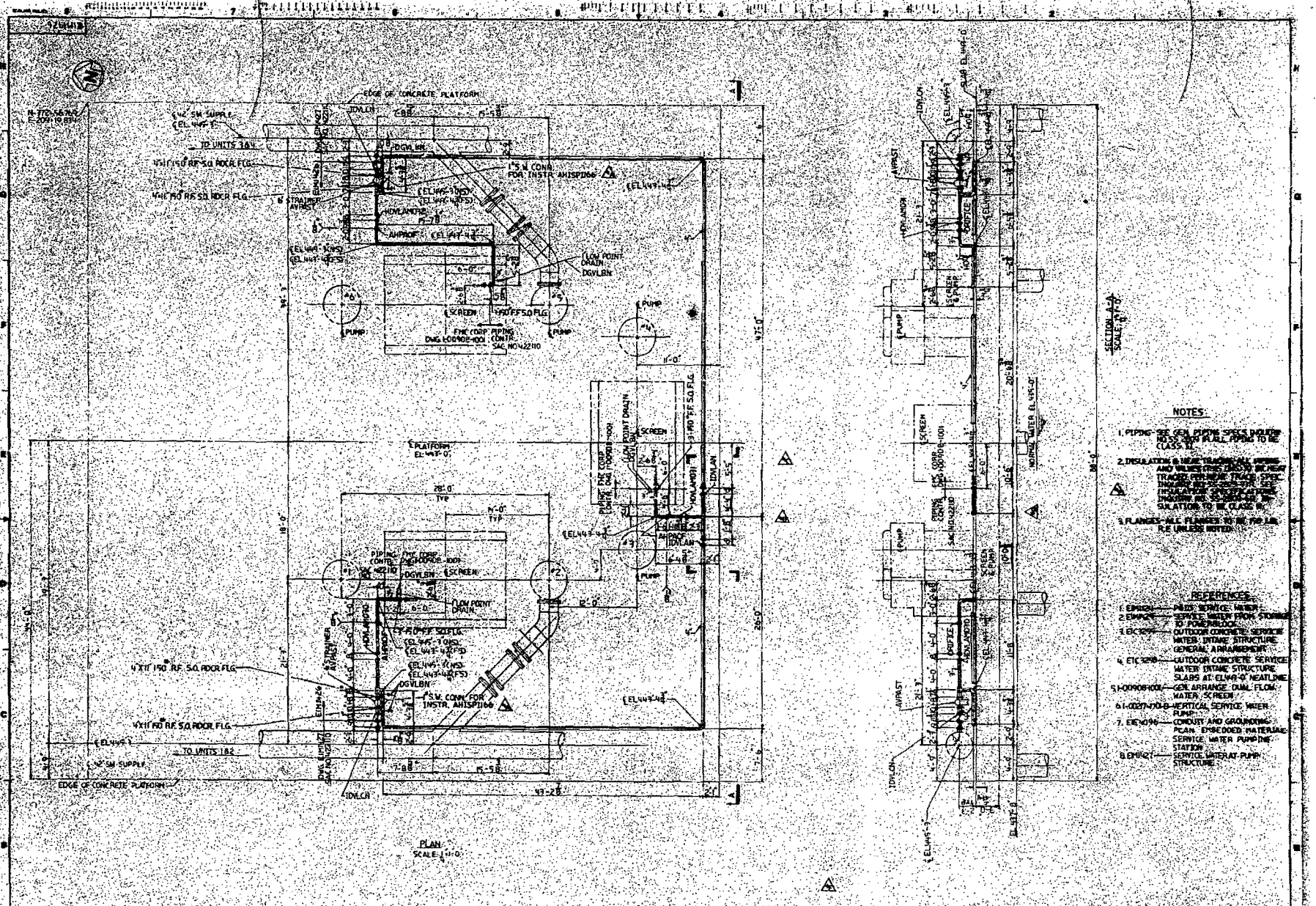
outages). The cooling water intake structure is in operation whenever Plant Scherer is in operation.

A NPDES Flow Diagram (supporting document 1), water balance diagram, and engineering drawings of the cooling water intake structure are included with this application.

Cooling water system data.

The maximum design intake flow for the Lake Juliette cooling water intake structure is 172 MGD. Normal flow for this intake is 97 MGD. Of the 97 MGD drawn per day, 62% is used for plant heat exchangers, and 30% goes straight to replace evaporation losses in cooling tower. The remaining 8 % is used for miscellaneous services such as demineralized water, fire protection, irrigation, dust suppression, and ash sluice make-up. As mentioned, Plant Scherer is a base load facility and the cooling water system is in operation whenever Plant Scherer is in operation.


PLAN
SECTION G-G
SECTION E-E
PLAN CONCRETE COVER REINFORCING
SECTION C-C
SECTION D-D TYP
SECTION B-B
DETAIL "G" (TYP)
SECTION A-A
SECTION F-F
PRECAST PANEL MKCPLIS
STAFF GAUGE SLOT MKFWMSIS
STEP TAPERED STEEL PILES
CONCRETE CYLINDER PILES MKCPLIS
PLATFORM PILE CAPS MKCPLIS
NOTE: MOTOR CRANE THIS AREA - SEE NOTE 5
RESTRICTION: NO LIFTING WITH CRANE ON BRIDGE
FIELD WELD MKPMSIS TO EMBEDDED PLATES FOR FENCE SUPPORT
NOTE: 250 PSF AREA SHOWN
NOTE: REMOVE ALIGNMENT PLATE AND RAISE NUTS BEFORE POURING COVER
NOTE: NOTCH OUT AROUND STAFF GAUGE TO EL 417.0'
GRADE EL 417.0
NORMAL WATER EL 415.0'
EL 404.0
EL 440.0 (PILE CAP)
EL 441.5 TYP
RUBBISH OPNG TYP
TRAVELING SCREEN OPNG TYP
266 PRECAST PANELS MKCPLIS
276 PRECAST PANELS MKCPLIS
GAP FOR EXPANSION (TYP)
FOR KICKBLOCK DETAILS SEE EIC3264
FENCE (MKBFEOS)
STAFF GAUGE MKFWMSIS (SEE EIC3304)
2'-4" LG GUARDRAIL POST MKCDCMSIS (4 REQ'D)
CONDUIT SLEEVE TO BE CAST IN PRECAST SLABS (TYPICAL 16 PLACES)
PIPE 2" STD
PRECAST PANEL
EMBEDDED PLATE
CONC COVER
2-1/2" DIA ANC BOLTS PROJ TO EL 447.4' BY FIELD, TYP 4 PLACES
4" CONC COVER TYP
20'-0 CIP
88'-0
NOTE: 250 PSF AREA SHOWN
NOTES:
1. ALL SLAB SECTIONS NOT MARKED CIP SHALL BE PRECAST CONCRETE PANELS.
2. THE TOP OF PLATFORM PRECAST PANELS IS TO BE EL 440'-0".
3. CONCRETE COVER TO BE APPLIED TO PLAT C-1 PRECAST PANELS AFTER ERECTION IS COMPLETE.
4. CROSSHATCHED AREAS HAVE A MINIMUM LIVE LOAD OF 250 PSF.
5. THE MAXIMUM ALLOWABLE LIFTING LOAD OF MOTOR CRANE SHALL NOT EXCEED 61 KIPS AT FULL OUTRIGGER EXTENSION.
6. ALL REINF. BARS THIS SHEET REMOVED OR FOR LOOT.
REFERENCES:
1. EIC3256 - OUTDOOR CONCRETE - SERVICE WATER INTAKE STRUCT. - PILE AND CAP ARRANGEMENT
2. EIC3257 - OUTDOOR CONCRETE - SERVICE WATER INTAKE STRUCT. - SLAB AT EL. 441'-0" - R.L. & REINFORCING
3. EIC3258 - OUTDOOR CONCRETE - SERVICE WATER INTAKE STRUCT. - SLABS AT EL. 441'-0" - R.L.
4. EIC3259 - OUTDOOR CONCRETE - SERVICE WATER INTAKE STRUCT. - SLABS AT EL. 441'-0" - REINFORCING
5. EIC3260 - MISCELLANEOUS STEEL - SERVICE WATER INTAKE STRUCT.
6. XRIC3255 - BILL OF REINFORCING
7. BOM3013 - BILL OF MATERIAL
8. E1E4096 - CONDUIT & GROUNDING PLAN - EMBEDDED MATERIAL SERVICE WATER PUMPING STATION STRUCT.
9. E1E4097 - ELECTRICAL EQUIPMENT AND RACEWAY LAYOUT AND LIGHTING PLAN - SERVICE WATER PUMPING STATION STRUCT.
10. E1M4026 - SERVICE WATER PUMP SCREEN WASH
11. E1M4027 - SERVICE WATER AT PUMP STRUCT.
12. E1M4028 - SERVICE WATER AT PUMP STRUCT.
13. 1-00212-1003 - SERVICE WATER PUMP - VERT. TURB. PUMP - G.D. & FLANG ASSEMBLY
14. 1-02809-1003 - TRAVELING WATER SCREENS - GENERAL ARRANGEMENT - DUAL FLOW
A. DN, HS ADDED KICKBLOCK FOR 42" DIAMETER PIPE.
A. CO ADDED MARK "C" - 2C-05 (@ P.) WAS "H 4L4"S" ANCHORAL POST
A. CO, CAP NOT EL WAS "447"
A.E.S. ADDED ANC. BOLTS
B. DN ADDED DETAIL "G"
C. E.S. ADDED DOOR DIMENSIONS
D.G.H. ADDED SECTION G-G
A. CC REVISE ALL PLATFORM PILE TO CUT ELEVATIONS
B. CS ADD PAD FOR HVAC UNIT
C. HR REVISE SECTION B
D. BG ADD SECTION F-F
E. EN ADD NOTE
A. CC REVISED NOTE NO. 5
B. F N-T REVISED NOTES
A. HS ADDED STAFF GAUGE MKFWMSIS
B. BG SEE NOTE
APPROVED
Southern Company Services, Inc.
Georgia Power Company
PLANT SCHERER UNIT NO. 1
OUTDOOR CONCRETE
SERVICE WATER INTAKE STRUCT.
GENERAL ARRANGEMENT
HARRIS
HARRIS
74100
10-505
EIC3255
5


EDGE OF CONCRETE PLATFORM
TO UNITS 3&4
TO UNITS 1&2
PLATFORM EL 447'-0"
SCREEN
PUMP
LOW POINT DRAIN
DGVLBN
IDVLAN
AHPROF
SECTION A-A
SCALE 1/4"=1'-0"
NOTES:
1. PIPING: SEE GEN. PIPING SPECS. DWG. NO. 53-2019 & ALL PIPING TO BE CLASS "B".
2. INSULATION & HEAT TRACING: ALL PIPING AND VALVES (PIPE TRACED) SHALL BE HEAT TRACED PER HEAT TRACE SPEC. INSULATION PER SPEC. 53-2019. SEE INSULATION SPECIFICATION DRAWING NO. 53-2019-01. INSULATION TO BE CLASS "B".
3. FLANGES: ALL FLANGES TO BE 150 LBS. R.F. UNLESS NOTED.
REFERENCES:
1. E8K1201 — PIPING SERVICE WATER
2. E8K1202 — SERVICE WATER FROM STORAGE TO POWERBLOCK
3. E8K1299 — OUTDOOR CONCRETE SERVICE WATER INTAKE STRUCTURE GENERAL ARRANGEMENT
4. E8K1298 — OUTDOOR CONCRETE SERVICE WATER INTAKE STRUCTURE SLABS AT EL 449'-0" NEATLINE
5. 1-00908-001 — GEN. ARRANGE. DUAL FLOW WATER SCREEN
6. 1-0027-700-B — VERTICAL SERVICE WATER PUMP
7. E8K1096 — CONDUIT AND GROUNDING PLAN. EMBEDDED MATERIAL SERVICE WATER PUMPING STATION
8. E8K1421 — SERVICE WATER PUMP STRUCTURE
PLAN
SCALE 1/4"=1'-0"
PLANT SCREEN UNITS 1-4
SERVICE WATER PUMP SCREEN WASH
SYSTEM NO. 4.01

NOTES

1. ALLIS-CHALMERS CONTRACT ENDS AT PUMP DISCHARGE NOZZLE AND AT MOTOR HALF COUPLING BOLTS, NUTS OR CLAMPS AT DISCHARGE NOTES, ARE FURNISHED.
2. ALLIS-CHALMERS WILL FURNISH PUMP SUPPORT PLATE, LEVELING SCREWS FOR PUMP SUPPORT PLATE, STUDS & NUTS NECESSARY TO SECURE PUMP SUBPLATE TO PUMP SUPPORT PLATE, FOUNDATION BOLTS NECESSARY TO SECURE PUMP SUPPORT PLATE TO CONCRETE FOUNDATION TO BE FURNISHED BY OTHERS.
3. ROTATION OF PUMP IS CLOCKWISE WHEN LOOKING DOWN FROM TOP.
4. CUSTOMER'S DISCHARGE PIPE MUST BE SUPPORTED, WHEN THE PUMP TO PREVENT PIPING STRAINS ON THE PUMP. THIS SUPPORT MUST ALSO BE CAPABLE OF RESTRAINING 15,500 LBS. HYDROSTATIC THRUST EXPERIENCED BY THE DISCHARGE OF THE PUMP. DO NOT USE ALLIS-CHALMERS FLANGE BOLTS FOR FOR PIPING INTO INLET.

NOTES CONTINUED ON (P-9)

NOTES CONTINUED

5. CUSTOMER THE CUSTOMER SHALL REMOVE THE UNIT FROM THE SUCTION BELL (CHB) ONCE THE UNIT IS IN VERTICAL POSITION AND BEFORE THE UNIT IS INSTALLED IN THE SUCTION PIT. ONCE THE UNIT IS INSTALLED REMOVE THE SHIPPING BOLTS, BLOCKING, DRAIN THE SHIPPING BOX FILL AND INSTALL PACKING GLAND CASE AND GLAND FOLLOWING GIVEN IN INSTRUCTION BOOK.
6. 1500 NPT CONNECTION FOR CUSTOMER WATER SUPPLY. FOR LOCATION SEE WATER PIPING PKG DWG. OR 5-504-620 A & B AND OR 15-141-620. CUSTOMER TO PIPE TO MOTOR BEARING. FOR OTHER PIPING EQUIPMENT FURNISHED BY ALLIS-CHALMERS OR PIPE INSTALLED BY CUSTOMER, SEE PIPING SCHEMATIC DWG. 15-505-641 AND A/R OR 15-141-620.
7. 1500 N.P.T. CONNECTION FOR LUBE FILTERING SYSTEM. CUSTOMER TO PIPE FROM PUMP TO START LUBE LINES. SEE PIPING SCHEMATIC DWG. 15-505-641 AND A/R OR 15-141-620.
8. FOR ALL OTHER MOTOR DIMENSIONS & CONNECTIONS SEE DWG. OR 15-141-225-442.
9. ALL EXPOSED, UNPAINTED CARBON STEEL SURFACES OF SUCTION ELBOW & SOLEPLATES, INCLUDING BOLTS, NUTS BY ALLIS-CHALMERS ARE TO BE COATED WITH WEBCO 75-P-5 TANK LINING HI-BUILD EPOXY LIGHT BUFF. AFTER ASSEMBLY IN FIELD, BY CUSTOMER. SEE DETAIL E (P-20).
10. ALL EXPOSED, UNPAINTED CARBON STEEL SURFACES OF SUCTION ELBOW & SOLEPLATES, INCLUDING BOLTS, NUTS BY ALLIS-CHALMERS ARE TO BE COATED WITH WEBCO 75-P-5 TANK LINING HI-BUILD EPOXY LIGHT BUFF. AFTER ASSEMBLY IN FIELD, BY CUSTOMER. SEE DETAIL E (P-20).

SETTING OF COUPLING

A) REMOVE BLOCKING AT PUMP HALF COUPLING.

B) SET THE MOTOR IN PLACE & BUMP IT FOR A REFERENCE CHECK. WHEN DOING SO BE SURE THAT THE ADJUSTMENT RING AND PUMP HALF COUPLING ARE CLEAR OF THE MOTOR HALF COUPLING AND THAT ALL COUPLING STUDS ARE OUT.

C) LINUP THE PUMP HALF COUPLING SUCH THE LOCKING PIN IS CLEAR OF THE ADJUSTMENT RING. ADJUST THE ADJUSTMENT RING TO THE SAME SHAFT SHAFT A GAP OF 2" IN OBTAINED BETWEEN THE PUMP AND MOTOR HALF COUPLING FACES WHEN THE PUMP HALF COUPLING IS SEATED. THE ADJUSTMENT RING MUST BE SEATED IN THE PUMP HALF COUPLING COUNTER-BORE AND THE IMPELLER MUST REMAIN SEATING ON THE RING THE "A" SEE WHEN THE GAP IS MEASURED.

NOTE: ROTATION OF ONE SLOT (45°) WILL CHANGE GAP BY .010

D) DISTANCE FROM BOTTOM OF [illegible] RING TO IMPELLER BY GAUGE IS 5.55 MINIMUM TO 5.55 MAXIMUM. IF MINIMUM EXCEEDS 5.55 THAN [illegible] MOTOR PEDESTAL.

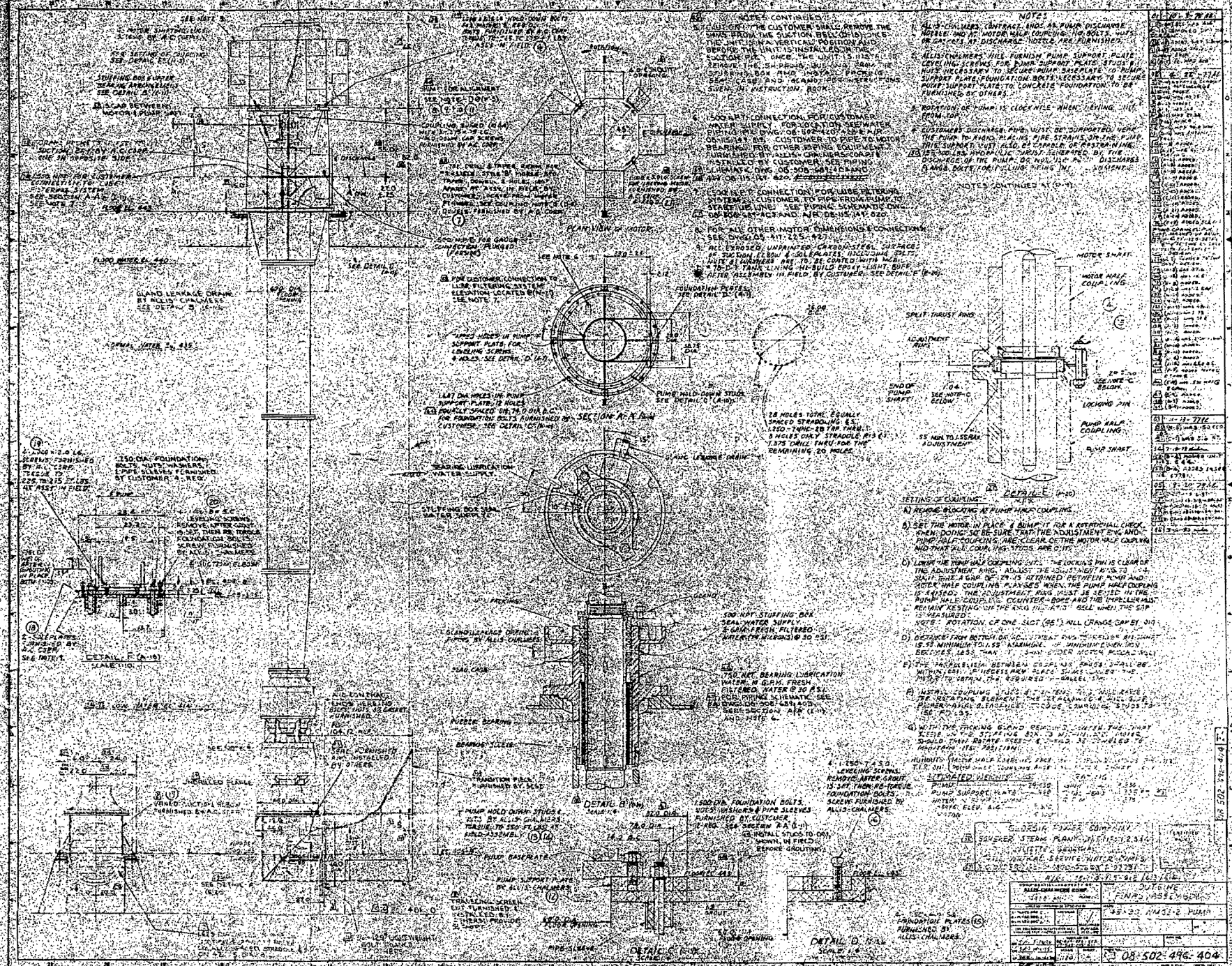
E) THE PACKAGE GAP BETWEEN COUPLING FACES SHALL BE WITHIN [illegible] PRESSED ARE SLOTS SHIMS [illegible] PRIOR TO OBTAIN THE REQUIRED [illegible] GAP.

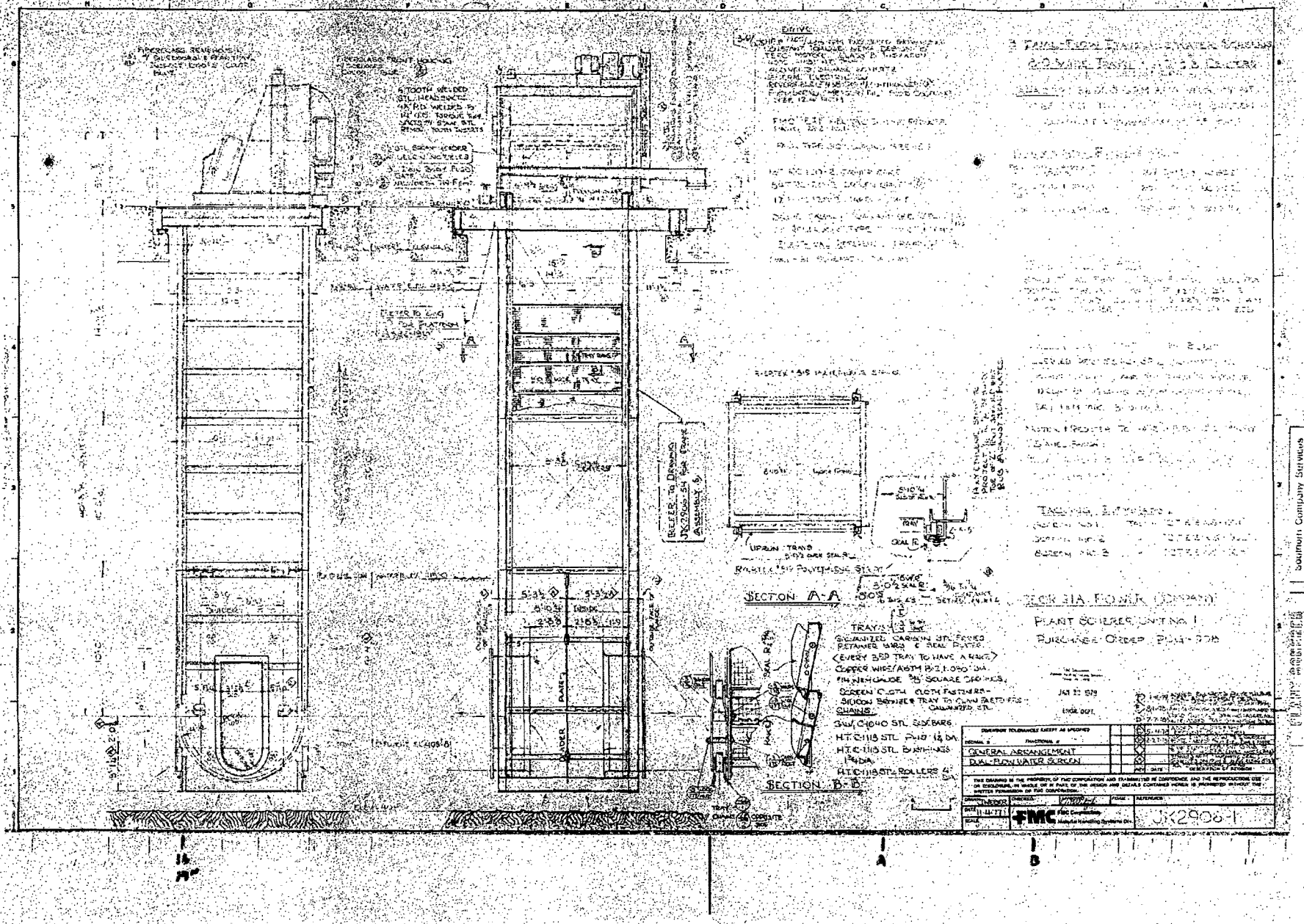
F) INSTALL COUPLING STUDS & [illegible] THE ELASTOMER ELEMENT THE ELEMENT & [illegible] PRESSED ARE SLOTS SHIMS [illegible] COUPLING STUDS TO (SEE FIG. 3).

G) WITH THE PACKING GLAND REMOVED CHECK THE SHAFT FACES ON THE STUFFING BOX [illegible] SHOULD THAT ROTATE FREELY & [illegible] TO MAINTAIN ITS POSITION.

MOTOR	[illegible]	PUMP	[illegible]
PUMP SUPPORT PLATE	[illegible]	MOTOR	[illegible]
MOTOR ELEV.	[illegible]		

GEORGIA POWER COMPANY
SCHERER STEAM PLANT
JUNCTION, GEORGIA
NATURAL SERVICE WATER PUMPS
OUTLINE
FINAL ASSEMBLY
49-22 HM32-2 PUMP
08-502-496-404




SECTION A-A
SECTION B-B
TRAYS
GENERAL ARRANGEMENT
DUAL-FLOW WATER SCREEN
FMC
JK2906-1

TEH djw

Environmental Affairs
Bin 10221
241 Ralph McGill Boulevard NE
Atlanta, Georgia 30308-3374
Tel 404.506.7063

GEORGIA POWER
A SOUTHERN COMPANY

December 7, 2007

Dr. Carol A. Couch
Director
Environmental Protection Division
Suite 1152 East
205 Butler Street, S.E.
Atlanta, Georgia 30334

RECEIVED
DEC 1 2 2007
GEORGIA EPD WATERSHED PROTECTION
PERMITTING COMPLIANCE AND ENFORCEMENT

RE: Plant Scherer
NPDES Permit No. GA0035564
Amendment to Renewal Application

Dear Dr. Couch:

On May 24, 2006, Georgia Power Company submitted an application to renew the Plant Scherer NPDES permit, Number GA0035564. This letter transmits documents amending that application for two purposes.

First, we are requesting an alternate outfall location for the plant Final Discharge, Outfall 01, to discharge this wastewater to Lake Juliette rather than to the Ocmulgee River. This alternate location would only be used in situations of extreme drought, as we are presently experiencing in north Georgia. The discharge would supplement natural inflow to Lake Juliette, which serves as the plant's service water pond. Due to low drought flows in the Ocmulgee River, we have been unable to utilize our Surface Water Withdrawal Permit, No 102-0590-03, to maintain reliable operating levels in Lake Juliette. Discharging the NPDES Final Discharge to Lake Juliette will prolong the water supply for the plant if rainfall continues to be insufficient to recharge the lake through natural inflow or from the river. This change will affect only the location of the Final Discharge and there will be no changes in any of the permit parameters or conditions regulating the content or volume of the discharge. The alternate location will only be used when pumping from the river is prohibited and Lake Juliette's level is lower than 425 feet. At all other times, the normal Final Discharge to the Ocmulgee River will be used.

Second, during the five year term of the renewed permit, Plant Scherer will place into operation Flue Gas Desulfurization (FGD) air emission control equipment. The FGD process will generate additional internal wastewater streams which will be consistent with the federal steam electric effluent guidelines definition for Low Volume Waste, 40 CFR 423.11(b). The FGD wastewater, identified as Outfall 03J, will flow to the Ash

Pond where it will combine with the other low volume wastewaters currently being co-treated. Outfall 03K is added for the FGD limestone stockpile and gypsum handling area storm water runoff to discharge to the Coal Pile Runoff Pond. Outfall 15 is an emergency overflow from the gypsum storage area, which will be designed to allow a discharge to Berry Creek only in the event of rainfall exceeding a 100-year 24-hour storm event, during which Berry Creek would also experience high flow rates.

Enclosed are documents to amend that application, including revised Form 2C, NPDES flow diagram, outfall location topographical map.

If you need additional information or have questions regarding this matter, please contact Bill Evans at 404-506-7031.

Sincerely,

Charles H. Huling

WRE/
Attachments

xc: Dominic Weatherill, Unit Coordinator, Industrial Wastewater Unit

Please print or type in the unshaded areas only.

EPA I.D. *(copy from Item 1 of Form 1)*
GAD000612796

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	33	05	06	- 83	46	44	Ocmulgee River via pipeline
01 alternate	33	03	32	- 83	48	41	Lake Juliette - alternate discharge location only during drought plan implementation
02	33	04	18	- 83	47	45	Berry Creek
04,05,06, 07,08,09, 10,12,13, 14	33	03	14	- 83	48	26	Lake Juliette - Service Water Storage Lake
11	33	02	51	- 83	44	21	Ocmulgee River
15	33	04	36	-83	47	32	Berry Creek

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	Final Plant Discharge Stormwater	14,052 gpm	25,000 gpm (maximum)	2F **	4A
01A	Cooling Tower Blowdown Units 1-4	7,470 gpm	33,000 gpm (maximum)	2F **	4A
01B	Ash Transport Bleedoff	6,582 gpm	19,753 gpm (maximum)		4A
01C	Unit 3 Cooling Tower Overflow and Basin Drain	*	15,820 gpm (maximum)	2F **	4A
01D	Unit 4 Cooling Tower Overflow and Basin Drain	*	15,820 gpm (maximum)	2F **	4A
01E	NPDES Basin Minimum Flow	*	2,238 gpm (maximum)	2F **	4A
02	Detention Pond (I-pond) Stormwater	451 gpm	22,266 gpm (10 yr - 24 hr rainfall event)		4A
02A	Detention Pond Bottom Drain	*			4A
02B	Fire Training Runoff	*			4A
02C	NPDES Basin Emergency Overflow Stormwater	*		2F **	4A
	* Intermittent or emergency Discharge				
	** During periods of Chlorination				

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 I of Form 1*)
GAD000612796

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 stormwater 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	Ash Transport Water Stormwater	32,381 gpm	50,000 gpm (maximum)	4C	4A
03A	No. 2 Sewage Treatment Plant	12 gpm	120 gpm (maximum)	3A, 2F	4C, 4A
03B	No. 4 Sewage Treatment Plant	1 gpm	17 gpm (maximum)	3A, 2F	4C, 4A
03C	No. 1 Sewage Treatment Plant	0 gpm	30 gpm (maximum)	3A,, 2F	4C, 4A
03D	Coal Pile Runoff Basin	693 gpm	5,300 gpm (maximum)	4C	4A
03E	Wastewater Basins.- Units 1-4	12,000 gpm	15,000 gpm (maximum)	4C	4A
03F	Low Volume Wastes - Units 1-4	5,388 gpm	8,600 gpm (maximum)	4C	4A
03G	Tractor Garage	1 gpm	500 gpm (maximum)	4C	4A
03H	Coal Pile Runoff	260 gpm	12,800 gpm (maximum)	4C	4A
03I	Chemical Cleaning Wastes	*		2K, 2C	4C, 4A
03J	Flue Gas Desulfurization Wastes	3,000 gpm	4,000 gpm	4C	4A
03K	FGD limestone & gypsum runoff	*	*	4C	4A
04	Service Water Final Discharge	1,527 gpm	79,200 gpm (maximum)	2F **	4A
04A	Service Water Return	*	79,200 gpm (maximum)	2F **	4A
04B	Service Water Minimum Flow	1,527 gpm	66,000 gpm (maximum)	2F **	4A
05	Unit 1 Cooling Tower Overflow and Basin Drain	*	15,820 gpm (maximum)	2F **	4A
06	Unit 2 Cooling Tower Overflow and Basin Drain	*	15,820 gpm (maximum)	2F **	4A

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 CONTINUE ON PAGE 1c

Please print or type in the unshaded areas only.

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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	
07	Settling Pond Emergency Overflow Stormwater	*	57,000 gpm (maximum)	1U, 2K	4A
08	Employee Car Wash Stormwater	7 gpm	325 gpm (maximum)		4A
09	Service Water Pump Seal Water	65 gpm	78 gpm (maximum)		4A
10	Service Water Screen Backwash	510 gpm	765 gpm (maximum)		4A
11	River Intake Pump Seal Water	100 gpm	100 gpm (maximum)		4A
12	Condensate, Filtered Water, and Potable Water Tank Overflows Stormwater	*	2,536 gpm (maximum)	2F**	4A
13	Units 1-2 Wastewater Basin Emergency Overflow	*	4,300 gpm (maximum)		4A
14	Units 3-4 Wastewater Basin Emergency Overflow	*	4,300 gpm (maximum)		4A
15	Gypsum Stack Emergency Overflow	*	*		4A

OFFICIAL USE ONLY (effluent guidelines sub-categories)

 CONTINUE ON PAGE 2

CONTINUED FROM PAGE 1c

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items I-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	
	See attachment 1 for intermittent discharges							
	Analyses on overflows and emergency discharges are submitted with the quarterly Operation Monitoring Reports							

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
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	(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		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 PROGRAMS IS ATTACHED

 CONTINUE ON PAGE 3

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

GAD000612796

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

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

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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 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, 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 December 7, 2007

INTERMITTENT FLOW DESCRIPTIONS
Attachment 1 for Form 2C page 2

Outfalls 01C, 01D, 05, and 06 – Cooling Tower Overflow / Basin Drain

Overflows from cooling towers may occur infrequently during equipment malfunction or emergency conditions. The estimated overflow discharge (15,820 gpm) is the design make-up water flow. Draining of the cooling tower basins may occur during unit outages. The frequency is dependent on unit operation and is estimated at twice per year.

Outfall 01E - NPDES Basin Minimum Flow

NPDES system minimum flows typically occur during periods of unit outages or cooling tower biocide treatment due to reduced cooling tower blow-down. The effluent is service water with a maximum discharge of 2,238 gpm.

Outfall 02A - I-Pond Bottom Drain

Discharges from the Detention (I-Pond) through the bottom drain could occur if necessary to perform dike, dam, or pond maintenance.

Outfall 02B - Fire Training Runoff

Discharges of filtered water used for fire training purposes may occur during the year due to classes conducted on site.

Outfall 02C - NPDES Basin Emergency Overflow

The normal discharge for the NPDES basin is through outfall 01. In the event of equipment malfunctions or emergency conditions, the basin may discharge though this outfall. Past events have been infrequent and of short duration.

Outfall 03I - Chemical Cleaning Wastes

Boiler and Turbine cleaning wastes are usually treated with sodium hydroxide or lime to a pH sufficient to precipitate the iron and copper suspended in solution. The water is then pumped to the ash pond via the wastewater basin. Boiler cleaning is infrequent and turbine cleaning is anticipated to be performed once per year. Rainwater is also pumped out of the chemical cleaning basin into the Units 1 & 2 wastewater basin.

Outfall 03K – FGD Limestone and Gypsum Handling Area Runoff

Discharges from storm water runoff from the limestone stockpile and gypsum handling area will depend on frequency and volume of rainfall events. These will flow to the Coal Pile Runoff Pond which is pumped to the Ash Pond.

Outfall 07 - Settling Pond Emergency Overflow

The normal settling pond discharge is through the ash transport bleed-off system. Discharges from the emergency overflow should only occur during periods of equipment malfunction, heavy rainfall, or emergency conditions. Overflow volume is variable with an estimated maximum of 57,000 gpm.

Outfall 12 - Condensate/Filtered Water/Potable Water Tank Overflows to Lake Juliette (Service Water Pond)

Storage tanks could overflow during abnormal operations. These infrequent overflows would consist of condensate, demineralized water, filtered water, or potable water. An overflow is typically less than 100 gpm and short in duration.

Outfall 13 and 14 - Waste Water Basin Emergency Overflow

Discharges could occur from equipment malfunctions or emergency conditions. An emergency portable pump is in standby mode to reduce the likelihood of an overflow.

Outfall 15 – Gypsum Stack Emergency Overflow

The normal gypsum stock pile storm water runoff will be directed along with the other Low Volume Wastewater from the Flue Gas Desulfurization process to the Ash Pond. Discharges from the emergency overflow will occur only following rainfall that exceeds a 100-year, 24-hour storm event. During such a storm event, the receiving stream, Berry Creek, would also experience abnormally high flows.

PLANT SCHERER
LAKE JULIETTE DROUGHT CONTINGENCY PLAN

NPDES Permit # GA0035564
Surface Water Permit # 102-0590-03

During the extreme drought of 2007-8, the volume of Plant Scherer's service water storage pond, Lake Juliette, dropped dangerously low due to restrictions in the plant's surface water withdrawal permit that prohibited pumping from the Ocmulgee River during low river flows. EPD approved drought contingency measures that allow the movement of stored water in Lake Jackson to Lake Juliette without reducing Ocmulgee River flows downstream of Plant Scherer. These measures provide for continuous operation of a single river pump, at a withdrawal rate of approximately 90cfs, from Ocmulgee River provided the following conditions are met:

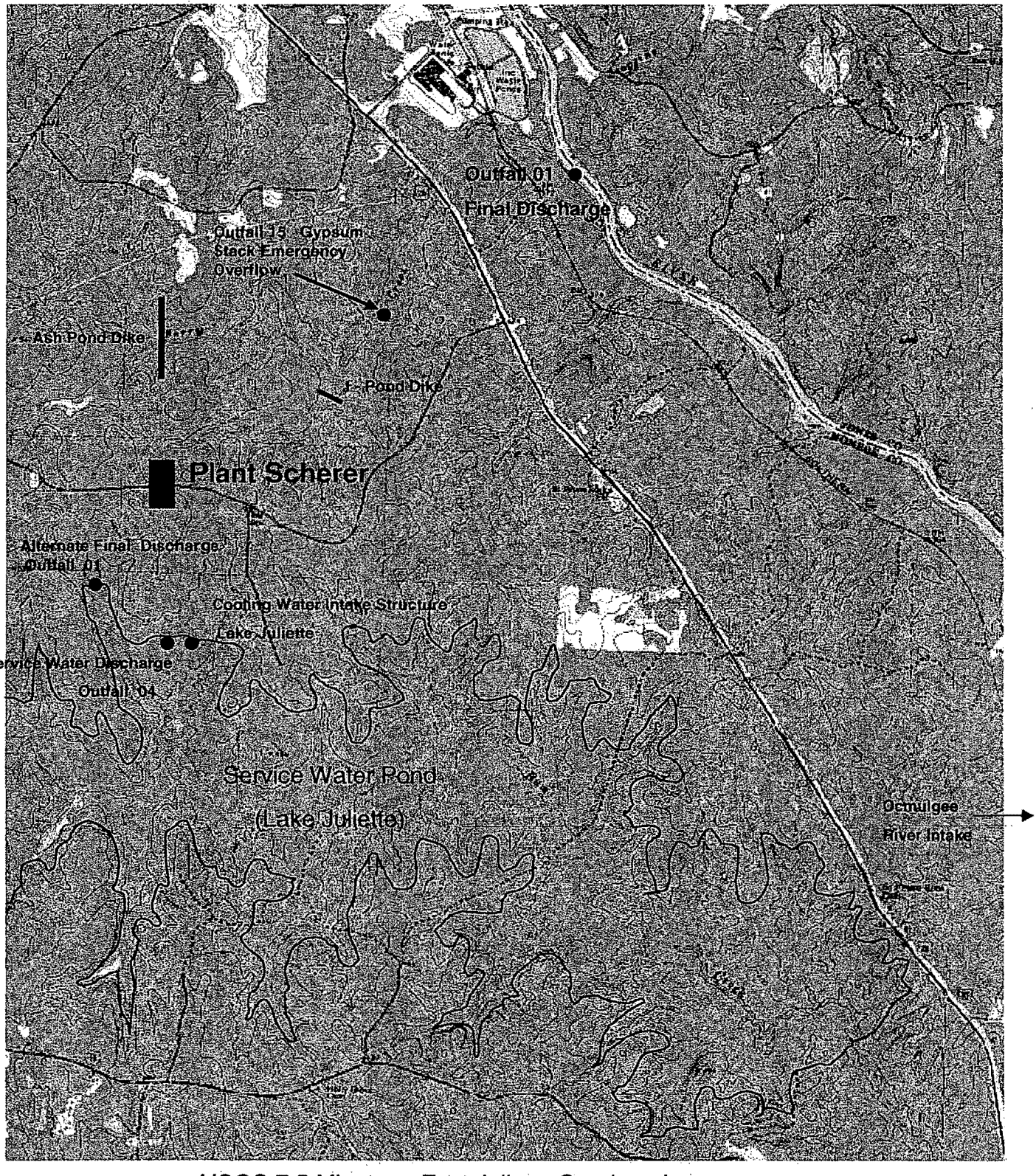
- River flow is less than 1020cfs but greater than or equal to 405 cfs as measured at USGS Gage 02210500, Ocmulgee River near Jackson, Ga.
- The pumping operation commences only when Lake Juliette level drops below 420'.
- The river pumping may continue until Lake Juliette rises above elevation 425',
- If river flow is greater than or equal to 1,020 cfs, the existing permit conditions apply

Supplementary to the above surface water withdrawal permit provision, the NPDES permit will allow an alternate outfall location for the Final Discharge, Outfall 01, only to be used during extreme drought conditions as described below. This will reduce the rate of consumption from Lake Juliette by returning the wastewater from the plant to the Lake rather than to the Ocmulgee River. Permit conditions and effluent limitations will not change with this change in physical location of the Outfall.

The Alternate Outfall 01 location to Lake Juliette will be employed only under the following conditions:

- Special Condition in the surface water withdrawal permit is imposed, restricting pumping from the Ocmulgee River
- Lake Juliette level falls below elevation 425'
- The Alternate Outfall 01 will cease discharging and revert to the normal Outfall 01 location when Ocmulgee River flows are above 1,020 cfs, sufficient to provide normal pumping operations.

Plant Scherer



USGS 7.5 Minute East Juliette Quadrangle

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

Tel 404.506.7063

GEORGIA POWER
A SOUTHERN COMPANY

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DEC 20 2007
GEORGIA EPD-WATERSHED PROTECTION
COMPLIANCE AND ENFORCEMENT

December 18, 2007

Mr. Dominic Weatherill
Georgia Environmental Protection Division
Industrial Wastewater Unit
4220 International Parkway – Suite 101
Atlanta, Georgia 30354

RE: Plant Scherer
NPDES Permit No. GA0035564
Supplemental information, Form 2D
Amendment to Renewal Application

Dear Mr. Weatherill:

On December 7, 2007, Georgia Power Company submitted an amendment to the application to renew the Plant Scherer NPDES permit, Number GA0035564. As requested by Mr. Hopkins of your staff, we are submitting the following supplemental documents for that amendment:

1. A completed Form 2D regarding the new waste streams associated with the Flue Gas Desulfurization (FGD) equipment.

2. A second page of the NPDES line diagram providing additional details of the FGD waste streams with respect to existing NPDES features.

3. A drawing showing the physical location of the future gypsum storage facility, from which Outfall 15 would discharge emergency overflow to Berry Creek in the event of a storm event exceeding a 100-year, 24-hour storm event.

If you need additional information or have questions regarding this matter, please contact Bill Evans at 404-506-7031.

Sincerely,

Tanya D. Blalock

Tanya D. Blalock
Environmental Manager, Water and Waste Programs

WRE/

Form 2D Instructions

Form 2D must be completed in conjunction with EPA Form 3510-1 (Form 1)

This form must be completed by all applicants who checked "yes" to Item II-D in Application Form 1. However, facilities which discharge only nonprocess wastewater that is not regulated by an effluent limitations guideline or new source performance standard may use EPA Form 3510-2E (Form 2E). Educational, medical, and commercial chemical laboratories should use this form or EPA Form 3510-2C (Form 2C). to further determine if you are a new source or a new discharger, see §122.2 and §122.29. This form should not be used for discharges of storm-water runoff.

Public Availability of Submitted Information

You may not claim as confidential any information required by this form or Form 1, whether the information is reported on the forms or in an attachment. Section 402(j) of the CWA requires that all permit applications shall be available to the public. This information will therefore be made available to the public upon request.

You may claim as confidential any information you submit to EPA which goes beyond that required by this form and Form 1. Confidentiality claims for effluent data must be denied. If you do not assert a claim of confidentiality at the time of submitting the information, EPA may make the information public without further notice. Claims of confidentiality will be handled in accordance with EPA's business confidentiality regulations in 40 CFR Part 2.

Completeness

Your application will not be considered complete unless you answer every question on this form and on Form 1 (except as instructed below). If an item does not apply to you, enter "NA" (for "not applicable") to show that you considered the question.

Follow-up Requirements

Although you are now required to submit estimated data on this form (Form 2D), please note that no later than two years after you begin discharging from the proposed facility, you must complete and submit Items V and VI of NPDES application Form 2C (EPA Form 3510-2C). However, you need not complete those portions of Item V requiring tests which you have already performed under the discharge monitoring requirements of your NPDES permit. In addition, the permitting authority may waive requirements of Items V-A and VI if the permittee makes the demonstrations required under 40 CFR §122.22(g)(7)(i)(B) and 122.21(g)(9).

Definitions

All significant terms used in these instructions and in the form are defined in the glossary found in the General Instructions which accompany Form 1.

Item I

You may use the map you provided for Item XI of Form 1 to determine the latitude and longitude (to the nearest 15 seconds) of each of your outfalls and the name of the receiving water. You should name all waters to which discharge is made and which flow into significant receiving waters. For example, if the discharge is made to a ditch which flows into an unnamed tributary which in turn flows into a named river, you should provide the name or description (if no name is available) of the ditch, the tributary, and the river.

Item II

This item requires your best estimate of the data on which your facility or new outfall will begin to discharge.

Item III-A

List all outfalls, their source (operations contributing to the flow), and estimate an average flow from each source. Briefly describe the planned treatment for these wastewaters prior to discharge. Also describe the ultimate disposal of any solid or liquid wastes not discharged. You should describe the treatment in either a narrative form or list the proper code for the treatment unit from a list provided in Table 2D-1.

Item III-B

An example of an acceptable line drawing appears in Figure 2D-1 to these instructions. The line drawing should show the route taken by water in your proposed facility from intake to discharge. Show all sources of wastewater, including process and production areas, sanitary flows, cooling water, and storm water runoff. You may group similar operations into a single unit, labeled to correspond to the more detailed listing in Item III-A. The water balance should show estimates of anticipated average flows. Show all significant losses of water to production, atmosphere, and discharge. You should use your best estimates.

Item III-C

Fill in every applicable column in this item for each source of intermittent or seasonal discharge. Base your answers on your best estimate. A discharge is intermittent if it occurs with interruptions during the operating hours of the facility. Discharges caused by routine maintenance shutdowns, process changes, or other similar activities are not considered to be intermittent. A discharge is seasonal if it occurs only during certain parts of the year. The reported flow rate is the highest daily value and should be measured in gallons per day. Maximum total volume means the total volume of any one discharge within 24 hours and is measured in units such as gallons.

Item IV

"Production" in this question refers to those goods which the proposed facility will produce, not to "waste-water" production. This information is only necessary where production-based new source performance standards (NSPS) or effluent guidelines apply to your facility. Your estimated production figures should be based on a realistic projection of actual daily production level (not designed capacity) for each of the first three operating years of the facility. This estimate must be a long-term-average estimate (e.g., average production on an annual basis). If production will vary depending on long-term shifts in operating schedule or capacity, the applicant may report alternate production estimates and the basis for the alternate estimates.

If known, report quantities in the units of measurement used in the applicable NSPS or effluent guideline. For example, if the applicable NSPS is expressed as "trams of pollutant discharged per kilogram of unit production," then report maximum **"Quantity Per Day"** in kilograms. If you do not know whether any NSPS or effluent guideline applies to your facility, report quantities in any unit of measurement known to you. If an effluent guideline or NSPS specifies a method for estimating production, that method must be followed.

There is no need to conduct new studies to obtain these figures; only data already on hand are required. You are not required to indicate how the reported information was calculated.

Items V-A, B, and C

These items require you to estimate and report data on the pollutants expected to be discharged from each of your outfalls. Where there is more than one outfall, you should submit a separate Item V for each outfall. For Part C only a list is required. Sampling and analysis are not required at this time. If, however, data from such analyses are available, then those data should be reported. Each part of this item addresses a different set of pollutants or parameters and must be completed in accordance with the specific instructions for that part. The following are the general and specific instructions for Items V-A through V-C.

Item V - General Instructions

Each part of this item requires you to provide an estimated maximum daily and average daily value for each pollutant or parameter listed (see Table 2D-2), according to the specific instructions below. The source of the data is also required.

For parts A through C, base your determination of whether a pollutant will be present in your discharge on your knowledge of the proposed facility's raw, materials, maintenance chemicals, intermediate and final products, byproducts, and any analyses of your effluent or of any similar effluent. You may also provide the determination and the estimates based on available in-house or contractor's engineering reports of any other studies performed on the proposed facility (see Item VI of the form). If you expect a pollutant to be present solely as a result of its presence in your intake water, please state this information on the form.

Please note that no later than 2 years after you begin discharging from the proposed facility, you must complete and submit Items V and VI of NPDES application Form 2C (follow-up data).

Reporting Intake Data. You are not required to report pollutants or parameters present in intake water unless you wish to demonstrate your eligibility for a "net" effluent limitation for these pollutants or parameters, that is, an effluent limitation adjusted to provide allowance for the pollutants or parameters present in your intake water. If you wish to obtain credits for pollutants or parameters present in your intake water, please insert a separate sheet, with a short statement of why you believe you are eligible [see §122.45(g)], under Item VII (Other Information). You will then be contacted by the permitting authority for further instructions.

All estimated pollutant or parameter levels must be reported as concentration and as total mass, except for discharge flow, temperature, and pH. Total mass is the total weight of pollutants or parameters discharged over a day.

Use the following abbreviations for units:

Concentration	Mass
ppm ..... parts per million	lbs..... pounds
mg/1 ..... milligrams per liter	ton ..... tons (English tons)
ppb ..... parts per billion	mg ..... milligrams
Ug/1..... micrograms per liter	g ..... grams
kg ..... kilograms	T ..... Tonnes (metric tons)

Source

In providing the estimates, use the codes in the following table to indicate the source of such information in column 4 of Parts V - A and - B.

	Code
Engineering study	1
Actual data from pilot plants	1
Estimates from other engineering studies	2
Data from other similar plants	3
Best professional estimates	4
Others	specify on the form

Item V-A

Estimates of data on pollutants or parameters in Group A must be reported by all applicants for all outfalls,

outfalls containing only noncontact cooling water or nonprocess wastewater.

To request a waiver from reporting any of these pollutants or parameters, the applicant must submit tot he permitting authority a waritten request specifying which pollutants or parameters should be waived and the reasons for requesting such a waiver. This request should be submitted to the permitting authority before or with the permit application. The permitting authority may waive the requirements for information about these pollutants or parameters if he or she determines that less stringent reporting requirements are adequate to support issuance of the permit. No extensive documentation will normally be needed, but the applicant should contact the permitting authority if she or he wishes to receive instructions on what his or her particular request should contain.

Item V-B

Estimates of data on pollutants in Group B must be reported by all applicants for all outfalls, including outfalls containing only noncontact cooling water or nonprocess wastewater. You are merely required to report estimates for those pollutants which you know or have reason to believe will be discharged or which are limited directly by an effluent limitations guideline (or NSPS) or indirectly through promulgated limitations on an indicator pollutant. The priority pollutants in Group B are divided into the following three sections:

1) Metal toxic pollutants, total cyanide, and total phenols
2) 2,3,7,8-Tetrachlorodibenzo-P-Dioxin (TCDD) (CAS # 1764-016)
3) Organic Toxic Pollutants (Gas Chromatography/-Mass Spectrometry Fractions)
   a) Volatile compounds
   b) Acid compounds
   c) Base/neutral compounds
   d) Pesticides

For pollutants listed in Sections 1 and 3, you must report estimates as instructed above.

For Section 2, you are required to report that TCDD may be discharged if you will use or manufacture one of the following compounds, or if you know or have reason to believe that TCDD is or may be present in an effluent:

A. 2,4,5-trichlorophenoxy acetic acid (2,4,5-T) (CAS # 93-765);
B. 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4, 5TP) (CAS # 93-72-I);
C. 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) (CAS # 136-25-4);
D. 0,O-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) (CAS # 299-84-3);
E. 2,4,5-trichlorophenol (TCP) (CAS # 95-95-4); or
F. Hexachlorophene (HCP) (CAS # 70-30-4)

Small Business Exemption

If you are a "small business," you are exempt from the reporting requirement for Item V-B (section 3). You may qualify as a "small business" if you fit one of the following definitions:

1) Your expected gross sales will total less than $100,000 per year for the next three years, or
2) in the case of coal mines, your average production will be less than 100,000 tons of coal per year.

If you are a "small business," you may submit projected sales or production figures to qualify for this exemption. The sales or production figures you submit must be for the facility which is the source of the discharge. The data should not be limited only to production or sales for the process or processes which contribute to the discharge, unless those are the only processes at your facility. For sales data, where intracorporate transfers of goods and services are involved, the transfer price per unit should approximate market prices for those goods and services as closely as possible. If necessary, you may index your sales figures to the second quarter of 1980 to demonstrate your eligibility for a small business exemption. This may be done by using the gross national product price deflator (second quarter of 1980 = 100), an index available in "National Income and Product Accounts of the United States" (Department of Commerce, Bureau of Economic Analysis).

The small business exemption applies to the GC/MS fractions (Section 3) of Item V-B only. Even if you are eligible for a small business exemption, you are still required to provide information on metals, cyanide, total phenols, and dioxin in Item V-B, as well as all of Items V-A and C.

Item V-C

List any pollutants in Table 2D-3 that you believe will be present in any outfalls and briefly explain why you believe they will be present. No estimate of the pollutant's quantity is required, unless you already have quantitative data.

Note: The discharge of pollutants listed in Table 2D-4 may subject you to the additional requirements of section 311 of the CWA (Oil and Hazardous Substance Liability). These requirements are not administered through the NPDES program. However, if you wish an exemption under 40 CFR 117.12(a)(2) from these requirements, attach additional sheets of paper to this form providing the following information:

A. The substance and the amount of each substance which may be discharged;

B. The origin and source of the discharge of the substance;

C. The treatment which is to be provided for the discharge by:

1. An onsite treatment system separate from any treatment system which will treat your normal discharge,

2. A treatment system designed to treat your normal discharge and which is additionally capable of treating the amount of the substance identified under paragraph 1 above, or

3. Any combination of the above.

An exemption from the section 311 reporting requirements pursuant to 40 CFR Part 117 for pollutants on Table 2D does not exempt you from the section 402 reporting requirements pursuant to 40 CFR Part 122 (Item V-C) for pollutants listed on Table 2D-3.

For further information on exclusions from Section 311, see 40 CFR Section 117.12(a)(2) and (c), or contact your EPA Regional Office (Table 1 in the Form 1 instructions).

Item VI-A

If an engineering study was conducted, check the box labeled "report available." If no study was done, check the box labeled "no report."

Item VI-B

Report the name and location of any existing plant(s) which (to the best of your knowledge) resembles your planned operation with respect to items produced, production process, wastewater constituents, or wastewater treatment. No studies need to be conducted to respond to this item. Only data which are already available need be submitted.

This information will be used to inform the permit writer of appropriate treatment methods and their associated permit conditions and limits.

Item VII

A space is provided for additional information which you believe would be useful in setting permit limits, such as additional sampling. Any response is optional.

Item VIII

The Clean Water Act provides for severe penalties for submitting false information on this application form.

Section 309(c)(2) of the Clean Water Act provides that "Any person who knowingly makes any false statement, representation, or certification in any application, . . .shall upon conviction, be punished by a fine of no more than $10,000 or by imprisonment for not more than six months, or both."

40 CFR Part 122.22 Requires the Certification To Be Signed as Follows:

A. 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 $25,000,000 (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

B. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

C. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

PHYSICAL TREATMENT PROCESSES

1-A ..... Ammonia Stripping
1-B ..... Dialysis
1-C ..... Diatomaceous Earth Filtration
1-D ..... Distillation
1-E ..... Electrodialysis
1-F ..... Evaporation
1-G ..... Flocculation
1-H ..... Flotation
1-I ..... Foam Fractionation
1-J ..... Freezing
1-K ..... Gas-Phase Separation
1-L ..... Grinding *(Comminutors*
1-M ..... Grit Removal
1-N ..... Microstraining
1-O ..... Mixing
1-P ..... Moving Bed Filters
1-Q ..... Multimedia Filtration
1-R ..... Rapid Sand Filtration
1-S ..... Reverse Osmosis *(Hyperfiltration)*
1-T ..... Screening
1-U ..... Sedimentation *(Settling)*
1-V ..... Slow Sand Filtration
1-W ..... Solvent Extraction
1-X ..... Sorption

CHEMICAL TREATMENT PROCESSES

2-A ..... Carbon Adsorption
2-B ..... Chemical Oxidation
2-C ..... Chemical Precipitation
2-D ..... Coagulation
2-E ..... Dechlorination
2-F ..... Disinfection *(Chlorine)*
2-G ..... Disinfection *(Ozone)*
2-H ..... Disinfection *(Other)*
2-I ..... Electrochemical Treatment
2-J ..... Ion Exchange
2-K ..... Neutralization
2-L ..... Reduction

BIOLOGICAL TREATMENT PROCESSES

3-A ..... Activated Sludge
3-B ..... Aerated Lagoons
3-C ..... Anaerobic Treatment
3-D ..... Nitrification-Denitrification
3-E ..... Preaeration
3-F ..... Spray Irrigation/Land Application
3-G ..... Stabilization Ponds
3-H ..... Trickling Filtration

OTHER PROCESSES

4-A ..... Discharge to Surface Water
4-B ..... Ocean Discharge Through Outfall
4-C ..... Reuse/Recycle of Treated Effluent
4-D ..... Underground Injection

SLUDGE TREATMENT AND DISPOSAL PROCESSES

5-A ..... Aerobic Digestion
5-B ..... Anaerobic Digestion
5-C ..... Belt Filtration
5-D ..... Centrifugation
5-E ..... Chemical Conditioning
5-F ..... Chlorine Treatment
5-G ..... Composting
5-H ..... Drying Beds
5-I ..... Elutriation
5-J ..... Flotation Thickening
5-K ..... Freezing
5-L ..... Gravity Thickening
5-M ..... Heat Drying
5-N ..... Heat Treatment
5-O ..... Incineration
5-P ..... Land Application
5-Q ..... Landfill
5-R ..... Pressure Filtration
5-S ..... Pyrolysis
5-T ..... Sludge Lagoons
5-U ..... Vacuum Filtration
5-V ..... Vibration
5-W ..... Wet Oxidation

GROUP A

Biochemical Oxygen Demand (BOD)
Chemical Oxygen Demand (COD
Total Organic Carbon (TOC)
Total Suspended Solids (TSS)
Flow
Ammonia (as N)
Temperature (winter)
Temperature (summer)
pH

GROUP B

Bromide
Total Residual Chlorine
Color
Fecal Coliform
Fluoride
Nitrate-Nitrite (as N)
Oil and Grease
Phosphorus (as P) Total
Radioactivity
(1) Alpha, Total
(2) Beta, Total
(3) Radium, Total
(4) Radium 226, Total
Sulfate (as SO_4)
Sulfide (as S)
Sulfite (as SO_3)
Surfactants
Aluminum, Total
Barium, Total
Boron, Total
Cobalt, Total
Iron, Total
Magnesium, Total
Molybdenum, Total
Manganese, Total
Tin, Total
Titanium, Total

Section 1

Antimony, Total
Beryllium, Total
Chromium, Total
Lead, Total
Nickel, Total
Silver, Total
Zinc, Total
Phenols, Total
Arsenic, Total
Cadmium, Total
Copper, Total
Mercury, Total
Selenium, Total
Thallium, Total
Cyanide, Total

Section 2

2,3,7,8,Tetrachlorodibenzo-P-Dioxin

GC/MS FRACTION* - VOLATILE COMPOUNDS

Arcolein
Benzene
Carbon Tetrachloride
Chlorodibramomethane
2-Chloroethylvinyl Ether
Dichlorobomomethane
1,2-Dichloroethane
1,2-Dichloropropane
Ethylbenzene
Methyl Chloride
1,1,2,2-Tetrachloroethane
Toluene
1,1,1-Trichloroethane
Trichloroethylene
Vinyl Chloride
Acrylonitirile
Bromoform
Chlorobenzene
Chloroethane
Chloroform
1,1-Dichloroethane
1,1-Dichloroethane
1,3-Dichloropropylene
Methyl Bromide
Methylene Chloroethane
Tretrachloroethylene
1,2-Trans-Dichloroethylene
1,1,2-Trichloroethane

GS/MS FRACTION -ACID COMPOUNDS

2-Chlorophenol
2,4-Dimethylphenol
2,4-Dinitro-phenol
4-Nitrophenol
pentachlorophenol
2,4,6-Trichlorophenol
2,4-Dichlorophenol
4,6-Dinitro-O-Cresol
2-Nitrophenol
P-Chloro-M-Cresol
Phenol

GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS

Acenaphthene
Anthracene
Benzo (a) Anthracene
3,5-Benzofluoranthene
Benzo (k) Fluoranthene
Bis (2-Chloroethyl) Ether Bis
Bis (2-Ethylhexyl) Phthalate
Butyl Benzyl Phthalate
4-Chlorophenyl Phenyl Ether
Dibenzo (a,h) Anthracene
1,3-Dichlorobenzene
3,3-Dichlorobenzidine
Dimethyl Phthalate
2,4-Dinitrotoluene
Di-N-Octyl Phthalate
Fluoranthene
Hexachlorobenzene
Hexachlorocyclopentadiene
Indeno (1,2,3-cd) Pyrene
Naphthalene
N-Nitro-soldimethylamine
N-Nitro-sodiphenylamine
Pyrene
Acenaphtylene
Benzidine
Benzo (a) Pyrene
Benzo (ghi) Perylene
Bis (2 Chloroethoxy) Methane
(2-Chloroisopropyl) Ether
4-Bromophenyl Phenyl Ether
2-Chloronaphthalene
Chrysene
1,2-Dichlorobenzene
1,4-Dichlorobenzene
Diethyl Phthalate
Di-N-Butyl Phthalate
2,6-Dinitrotoluene
1,2, Diphenylhydrazine (as Azobenzen)
Fluorene
Hexachlorobutadiene
Hexachloroethane
Isophorone
Nitrobenzene
N-Nitrosodi-N-Propylamine
Phenanthrene
1,2,4-Trichlorobenzene

GC/MS FRACTION - PESTICIDES

Aldrin
Alpha-BHC
Beta-BHC
4,4' DDT
4,4'-DDD
Alpha-Endosulfan
Endosulfan Sulfate
Endrin Aldehyde
Heptachlor Epoxide
PCB-1254
PCB-1232
PCB-1260
Toxaphene
Gamma-BHC
Delta-BHC
Chlordane
4,4' DDE
Dieldrin
Beta-Endosulfan
Endrin
Heptachlor
PCB-1242
PCB-1221
PCB-1248
PCB-1016

*fractions defined in40 CFR Part 136

TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES REQUIRED TO BE IDENTIFIED BY APPLICANTS IF EXPECTED TO BE PRESENT

TOXIC POLLUTANT

Asbestos

HAZARDOUS SUBSTANCES

Aceltaldehyde
Allyl alcohol
Allyl chloride
Amyl acetate
Aniline
Benzonitrile
Benzyl chloride
Butyl acetate
Butylamine
Captan
Carbaryl
Carbofuran
Carbon disulfide
Chlorpyrifos
Coumpahos
Cresol
Crotonaldehyde
Cyclohexane
2,4-D (2,4-Dichlorophinoxyacetic acid)
Diazinon
Dicamba
Dichlobenil
Dichlone
2,2 Dichloropropionic acid
Dichlorvos
Diethyl amine
Dimethyl amine
Dintrobenzene
Diquat
Disulfoton
Diuron
Epichlorohydrin
Ethion
Ethylene diamine
Formaldehyde
Furfural
Guthion
Isoprene
Isopropanolamine dodecylbenzenesulfonate
Kelthane
Kepone
Malathion
Mercaptodimethur
Methoxychlor

HAZARDOUS SUBSTANCES

Methyl mercaptan
Methyl methacrylate
Methyl parathion
Mevinphos
Mexacarbate
Monoethyl amine
Monomethyl amine
Naled
Naphthenic acid
Nitrotoluene
Parathion
Phenolsufonate
Phosgene
Propargite
Propylene oxide
Pyrethrins
Quinoline
Resorcinol
Strontium
Strychnine
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)
TDE (Tetrochlorodiphenyl ethane
2,4,5-TP [2-(2,4,5-Trichlorophenoxy) propanic acid]
Trichlorofon
Triethanolamine dodecylbenzenesulfonate
Triethylamine
Uranium
Vanadium
Vinyl acetate
Xylene
Xylenol
Zirconium

HAZARDOUS SUBSTANCES

Acetaldehyde
Acetic acid
Acetic anhydride
Acetone cyanohydrin
Acetyl bromide
Acetyl chloride
Acrolein
Acrylonitrile
Adipic acid
Aldrin
Allyl alcohol
Alyll chloride
Aluminum sulfate
Ammonia
Ammonium acetate
Ammonium benzoate
Ammonium bicarbonate
Ammonium bichromate
Ammonium bifluoride
Ammonium bisulfite
Ammonium carbamte
Ammonium carbonate
Ammonium chloride
Ammonium chromate
Ammonium citrate
Ammonium flouroborate
Ammonium fluoride
Ammonium hydroxide
Ammonium oxalate
Ammonium silicofluoride
Ammonium sulfamate
Ammonium sulfide
Ammonium silfite
Ammonium tartrate
Ammonium thiocyanate
Ammonium thisulfate
Amyl acetate
Aniline
Antimony pentachloride
Antimony potassium tartrate
Antimony tribromide
Antimony trichloride
Antimony trifluoride
Antimony trioxide
Arsenic disulfide
Barium cyanide
Benzene
Benzoic acid
Benzonitrite
Benzoyl chloride
Benzyl chloride
Beryllium chloride
Beryllium fluoride
Beryllium nitrate
Butylacetate
n-Butylphthalate
Butylamine
Butyric acid
Cadmium acetate
Cadmium bromide
Cadmium chloride
Calcium arsenate
Calcium arsenite
Calcium carbide
Calcium chromate
Calcium cyanide
Calcium dodecylbenzenesulfonate
Calcium hypochlorite
Captan
Carbaryl
Carbofuran
Carbon disulfide
Carbon tetrachloride
Chlordane
Chlorine
Chlorobenzene
Chloroform
Chloropyrifos
Chlorosulfonic acid
Chromic acetate
Chromic acid
Chromic sulfate
Chromous chloride
Cobaltous bromide
Cobaltous formate
Cobaltous sulfamate
Coumaphos
Cresol
Crotonaldehyde
Cupric acetate
Cupric acetoarsenite
Cupric chloride
Cupric nitrate
Cupric oxalate
Cupric sulfate
Cupric sulfate ammoniated
Cupric tartrate
Cyanogen chloride
Cyclohexane
2,4-D acid (2,4-Dichlorophenoxyacetic acid esters)
DDT
Diazinon
Dicamba
Dichlobenil
Dichlone
Dichlorobenzene
Dichloropropane
Dichloropropene
Dichloropropene-Dichloropropane mix
2.2-Dichloropropionic acid
Dichlorvos
Dieldrin
Diethylamine
Dimethylamine
Dinitrobenzene
Dinirophenol
Dinitrotoluene
Diquat
Disulfoton
Diuron
Dodecylbenzesulfonic acid
Endosulfan
Endrin
Epichlorohydrin
Ethion
Ethylbenzene
Ethylenediamine
Ethylene dibromide
Ethylene dichloride
Ethylene diaminetetracetic acid (EDTA)
Ferric ammonium citrate
Ferric ammonium exalate
Ferric chloride
Ferric fluoride
Ferric nitrate
Ferric sulfate
Ferrous chloride
Ferrous sulfate
Formaldehyde
Formic acid
Fumaric acid
Furfural
Guthion
Heptachlor
Hexachlorocyclopentadiene
Hydrochloric acid
Hydrofluoric acid
Hydrogen cyanide
Hydrogen sulfide
Isoprene
Isopropanolamine dodecylbenzenesulfonate
Kelthane
Kepone
Lead acetate
Lead arsenate
Lead chloride
Lead fluoborate
Lead fluorite
Lead iodide
Lead nitrate
Lead stearate
Lead sulfate
Lead sulfide
Lead thiocyanate
Lindane
Lithium chromate
Malathion

HAZARDOUS STUBSTANCES *(Continued)*

Maleic acid
Maleic anhydride
Mercaptodimethur
Mercuric cyanide
Mercuric nitrate
Mercuric sulfate
Mercuric thiocyanate
Mercurous nitrate
Methoxychlor
Methyl methacrylate
Methyl parathion
Mevinphos
Mexacarbate
Monethylamine
Monomethylamine
Naled
Naphthalene
Naphthenic acid
Nickel ammonium sulfate
Nickel chloride
Nickel hydroxide
Nickel nitrate
Nickel sulfate
Nitric acid
Nitrobenezene
Nitrogen dioxide
Nitrophenil
Nitrotoluene
Paraformaldehyde
Parathion
Pentachlorophenol
Phenol
Phosoene
Phosphoric acid
Phosphorus
Phosphorus oxychloride
Phosphorus pentasulfide
Phosphorus trichloride
Polychlorinated biphenyls (PCB)
Potassium arsenate
Potassium arsenite
Potassium bichromate
Potassium cyanide
Potassium hydroxide
Potassium permanganate
Propargite
Propionic acid
Propionic anhydride
Propylene oxide
Pyrethrins
Quinoline
Resorcinol
Selenium oxide
Silver nitrate
Sodium
Sodium arsenate
Sodium arsenite
Sodium bichromate
Sodium bifluoride
Sodium bisulfite
Sodium chromate
Sodium cyanide
Sodium dodecylbenzenesulfonate
Sodium fluoride
Sodium hydrosulfide
Sodium hydroxide
Sodium hypochlorite
Sodium methylate
Sodium nitrate
Sodium phospate (dibasic)
Sodium phosphate (tribasic)
Sodium selenite
Strontium chromate
Strychnine
Styrene
Sulfuric acid
Sulfur monochloride
2,4,5-T acid (2,4,5-Trichlorophenoxy acetic acid)
2,4,5-Tamines (2,4,5-Trichlorophenoxy acetic acid amines)
2,4,5-T esters (2,4,5-Trichlorophenoxy propanoic acid)
2,4,5-TP acid esters (2,4,5-Trichlorophenoxy propanoic acid esters)
TDE (Tetrachlorodiphenyl ethane)
Tetraethyl lead
Tetraethyl pyrophosphate
Thallium sulfate
Toluen
Toxaphene
Trichlorofon
Trichloroethylene
Trichlorophenol
Triethanolamine dodecylbenzenesulfonate
Triethylamine
Trimethylamine
Uranyl acetate
Uranyl nitrate
Vanadium pentoxide
Vanadyl sulfate
Vinyl acetate
Vinylidene chloride
Xylene
Xylenol
Zinc acetate
Zinc ammonium chloride
Zinc borate
Zinc bromide
Zinc carbonate
Zinc chloride
Zinc cyanide
Zinc fluoride
Zinc formate
Zinc hydrosulfite
Zinc nitrate
Zinc phenolsulfonate
Zinc phosphide
Zinch silicofluoride
Zinc sulfate
Zirconium nitrate
Zirconium potassium fluoride
Zirconium sulfate
Zirconium tetrahloride

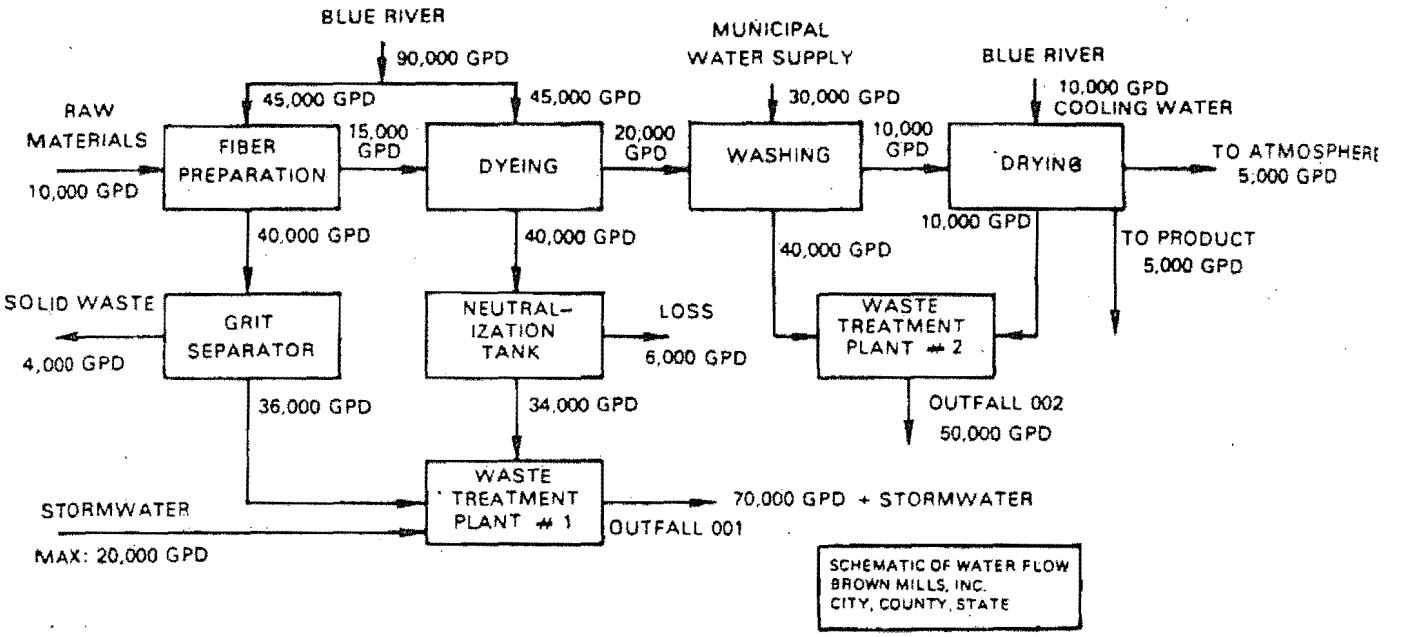
BLUE RIVER
90,000 GPD
45,000 GPD
45,000 GPD
RAW MATERIALS
10,000 GPD
FIBER PREPARATION
15,000 GPD
DYEING
20,000 GPD
MUNICIPAL WATER SUPPLY
30,000 GPD
WASHING
10,000 GPD
BLUE RIVER
10,000 GPD COOLING WATER
DRYING
TO ATMOSPHERE 5,000 GPD
40,000 GPD
40,000 GPD
40,000 GPD
10,000 GPD
TO PRODUCT 5,000 GPD
SOLID WASTE
4,000 GPD
GRIT SEPARATOR
NEUTRAL-IZATION TANK
LOSS
6,000 GPD
WASTE TREATMENT PLANT # 2
36,000 GPD
34,000 GPD
OUTFALL 002
50,000 GPD
STORMWATER
MAX: 20,000 GPD
WASTE TREATMENT PLANT # 1
70,000 GPD + STORMWATER
OUTFALL 001
SCHEMATIC OF WATER FLOW
BROWN MILLS, INC.
CITY, COUNTY, STATE

Figure 2D-1

Please type or print in the unshaded areas only	EPA ID Number *(Copy from Item 1 of Form 1)* **GAD000612796**	*Form Approved* *OMB No. 2040-0086* *Approval expires 7-31-88*

RECEIVED
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GEORGIA EPD WATERSHED PROTECTION
PERMITTING COMPLIANCE AND ENFORCEMENT

Form **2D** NPDES

EPA

New Sources and New Dischargers Application for Permit to Discharge Process Wastewater

I. Outfall Location

For this outfall, list the latitude and longitude, and name of the receiving water(s)

Outfall Number *(list)*	Latitude Deg	Latitude Min	Latitude Sec	Longitude Deg	Longitude Min	Longitude Sec	Receiving Water *(name)*
03J	***33***	***05***	***06***	***-83***	***46***	***44***	***Ocmulgee River via Final Discharge, Outfall 01***
03K	***33***	***05***	***06***	***-83***	***46***	***44***	***Ocmulgee River via Final Discharge, Outfall 01***
15	***33***	***04***	***36***	***-83***	***47***	***32***	***Berry Creek***

II. Discharge Date *(When do you expect to begin discharging?))*

April, 2011

III. Flows, Sources of Pollution, and Treatment Technologies

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

Outfall Number	1. Operations Contributing Flow *(list)*	2. Average Flow *(include units)*	3. Treatment *(Description of list Codes from Table 2D-1)*
03J	***Flue Gas Desulfurization Wastewater - storm water***	***3,000 gpm***	***1G, 1U, 4A***
03K	***Limestone and Gypsum Handling Area Runoff***	***intermittent***	***1U, 4A***
15	***Gypsum Storage Emergency Overflow***	***intermittent***	***1U, 4A***

B. 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 III-A. 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.

C. Except for storm runoff, leaks, or spills, will any of the discharges described in Item III-A be intermittent or seasonal?

☒ Yes *(complete the following table)* ☐ No *(go to Item IV)*

Outfall Number	1. Frequency		2. Flow		
	a. Days Per Week *(specify average)*	b. Months Per Year *(specify) average)*	a. Maximum Daily Flow Rate *(in mgd)*	b. Maximum Total Volume *(specify with units)*	c. Duration *(in days)*
Outfall 03K,FGD Gypsum and Limestone Area Runoff will be intermittent depending on rainfall. The total discharge will be contained in the Plant Scherer Coal Pile Runoff Pond and discharged from there to the Ash Pond.	***N/A***	***N/A***	***N/A***	***100 gpm***	***Less than one***
Outfall 15, FGD Gypsum Storage Emergency Overflow, is shown on Part III as intermittent. The containment of this storage will be designed to prevent overflow unless a rainfall exceeds the statistical 100-year, 24-hour storm event for this location, which is 8.2 inches in 24 hours. In such event, the overflow will be of short duration and the receiving stream flow (Berry Creek) is anticipated to to also be abnormally high. For example if the storm event is 10 inches in 24 hours, the peak emergency overflow rate would be 21 cfs and Berry Creek flow is projected to be 820 cfs.					

IV. Production

If there is an applicable production-based effluent guideline or NSPS, for each outfall list the estimated level of production (projection of actual production level, not designed), expressed in the terms and units used in the applicable effluent guideline or NSPS, for each of the first 3 years of operation. If production is likely to vary, you may also submit alternative estimates (attach a separate sheet).

Year	a. Quantity Per Day	b. Units of Measure	c. Operation, Product, Material, etc *(specify)*
			Not Applicable

 CONTINUE ON NEXT PAGE

CONTINUED FROM THE FRONT	EPA ID Number *(cop from Item 1 of Form 1)*	Outfall Number
	GAD000612796	~~01F and 01G~~ 03J ET AL

V. Effluent Characteristics

A and B: These items require you to report estimated amounts *(both concentration and mass)* of the pollutants to be discharged from each of your outfalls. Each part of this item addresses a different set of pollutants and should be completed in accordance with the specific instruction for that part. Data for each outfall should be on a separate page. Attach additional sheets of paper if necessary.

General Instructions *(See Table 2D-2 for Pollutants)*

Each part of this item requests you to provide an estimated daily maximum and average for certain pollutants and the source of information. Data for all pollutants in Group A, for all outfalls, must be submitted unless waived by the permitting authority. For all outfalls, data for pollutants in Group B should be reported only for pollutants which you believe will be present or are limited directly by an effluent limitations guideline or NSPS or indirectly through limitations on an indicator pollutant.

1. Pollutant	2. Maximum Daily Value *(include units)*	3. Average Daily Value *(include units)*	4. Source *(see instructions)*
See attached Table V			
List applies to all three Outfalls			

CONTINUED FROM THE FRONT	EPA ID Number *(cop from Item 1 of Form 1)* **GAD000612796**	

C. Use the space below to list any of the pollutants listed in Table 2D-3 of the instructions which you know or have reason to believe will be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it will be present.

1. Pollutant	2. Reason for Discharge
None	

VI. Engineering Report on Wastewater Treatment

A. If there is any technical evaluation concerning your wastewater treatment, including engineering reports or pilot plant studies, check the appropriate box below.

☐ Report Available ☒ No Report

B. Provide the name and location of any existing plant(s) which, to the best of your knowledge, resembles this production facility with respect to production processes, wastewater constituents, or wastewater treatments.

Name	Location
Plant Yates (Note discussion on page 5 regarding relevance of this process to the Plant Scherer Flue Gas Desulfurization process.)	***Newnan, Georgia***

EPA ID Number *(cop from Item 1 of Form 1)*
GAD000612796

VII. Other Information *(Optional)*

Use the space below to expand upon any of the above questions or to bring to the attention of the reviewer any other information you feel should be considered in establishing permit limitations for the proposed facility. Attach additional sheets if necessary.

03J – Flue Gas Desulfurization wastewater,
03K - FGD Limestone and Gypsum Handling Area Runoff, and
15 - Gypsum Storage Emergency overflow.
The effluent pollutant concentrations are uncertain due to:
(1) limited industry experience with varying processes
(2) variability of coals and ash constituents
(3) variability of effectiveness of solids removal

Southern Company has one existing scrubber in operation from which may be derived a limited characterization of the wastewater potentially released by the Plant Scherer scrubbers. This scrubber is a joint Southern Company / Department of Energy / Electric Power Research Institute demonstration of the Chiyoda FGD technology. It is a small-scale research project on a 100 megawatt unit at Plant Yates near Newnan, Georgia. The constituents of the settled wastewater blowdown are listed in Form 2D.

The Plant Scherer process has several differences from the Yates process such that it is impossible to predict the constituents in the Scherer waste streams. The 03J effluent will pass through a gypsum settling process prior to discharge to the Ash Pond, then commingling with cooling tower blowdown and subsequent discharge through the plant Final Discharge, Outfall 01 to the Ocmulgee River. The 03K and 15 effluents are described in Part III.C above

VIII. Certification

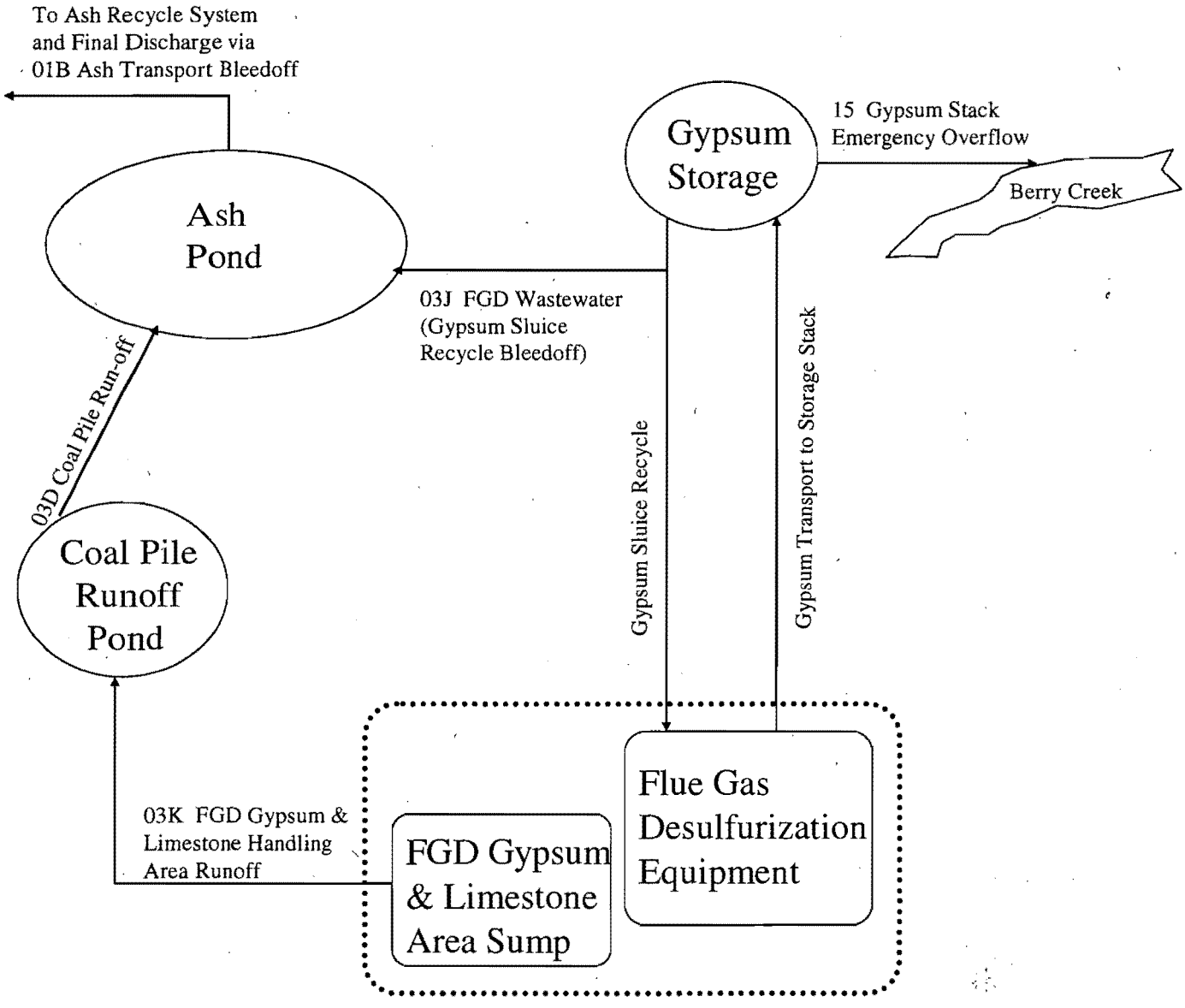
I Certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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.

A. Name and Official Title *(type or print)*	B. Phone No.
Charles H. Huling, Vice President, Environmental Affairs	***(404-) 506-7716***
C. Signature Charles H. Huling	D. Date Signed 12/17/07

Table V, Form 2D **EPA ID Number GAD 000612796**
Effluent Characteristics (with caveats noted in Form 2D section VII)
Outfall 03J - FGD Wastewater

Pollutant	Units	Average Daily Value Concentration	Average Daily Value Mass (lb/day)	Maximum Daily Value Concentration	Maximum Daily Value Mass (lb/day)	Source
				All maximum concentrations assumed same as average.		
Group A						
BOD		not analyzed				
Chem Oxygen Demand		not analyzed				
Total Organic Carbon	mg/l	0.593	21.3		28.5	1
TSS	mg/l	4	144.0		192.0	1
Flow	gpm	3,000	n/a	4,000	n/a	1
Ammonia (as N)	mg/l	0.55	19.8		26.4	1
Temperature (Winter)	mg/l	19	n/a		n/a	4
Temperature (Summer)	mg/l	26	n/a		n/a	4
pH	SU	4.49	n/a		n/a	1
Group B						
Bromide	mg/l	7.42	267.1		356.2	1
Chlorine, Total Residual	mg/l	0	n/a		n/a	4
Color	PCU	8	n/a		n/a	1
Fecal Coliform	MPN/100ml	0	n/a		n/a	4
Flouride	mg/l	62.3	2242.8		2990.4	1
Nitrate-Nitrite (as N)	mg/l	0.01	0.4		0.5	1
Oil and Grease	mg/l	0	0.0		0.0	4
Phosphorus (as P) Total	mg/l	0.24	8.6		11.5	1
Sulfate (as SO4)	mg/l	1549.5	55782.0		74376.0	1
Sulfide (as S)		not analyzed				
Sulfite (as SO3)		not analyzed				
Surfactants	mg/l	0	0.0		0.0	4
Aluminum, Total	mg/l	15.8	568.8		758.4	1
Barium, Total	mg/l	0.271	9.8		13.0	1
Boron, Total	mg/l	30.1	1083.6		1444.8	1
Cobalt, Total	mg/l	0.037	1.3		1.8	1
Iron, Total	mg/l	1.88	67.7		90.2	1
Magnesium, Total	mg/l	276	9936.0		13248.0	1
Molybdenum, Total	mg/l	0.031	1.1		1.5	1
Manganese, Total	mg/l	1.81	65.2		86.9	1
Tin, Total	mg/l	0.014	0.5		0.7	1
Titanium, Total	mg/l	0.107	3.9		5.1	1
Group B - Section 1						
Antimony, Total	mg/l	0.032	1.2		1.5	1
Arsenic, Total	mg/l	0.013	0.5		0.6	1
Beryllium, Total	mg/l	0.003	0.1		0.1	1
Cadmium, Total	mg/l	0.033	1.2		1.6	1
Chromium, Total	mg/l	0.076	2.7		3.6	1
Copper, Total	mg/l	0.143	5.1		6.9	1
Lead, Total	mg/l	0.004	0.1		0.2	1
Mercury, Total	mg/l	0.0289	1.0		1.4	1
Nickel, Total	mg/l	0.124	4.5		6.0	1
Selenium, Total	mg/l	0.551	19.8		26.4	1
Silver, Total	mg/l	0	0.0		0.0	1
Thallium, Total	mg/l	0.013	0.5		0.6	1
Zinc, Total	mg/l	1.7	61.2		81.6	1
Cyanide, Total		not analyzed				
Phenols, Total		not analyzed				

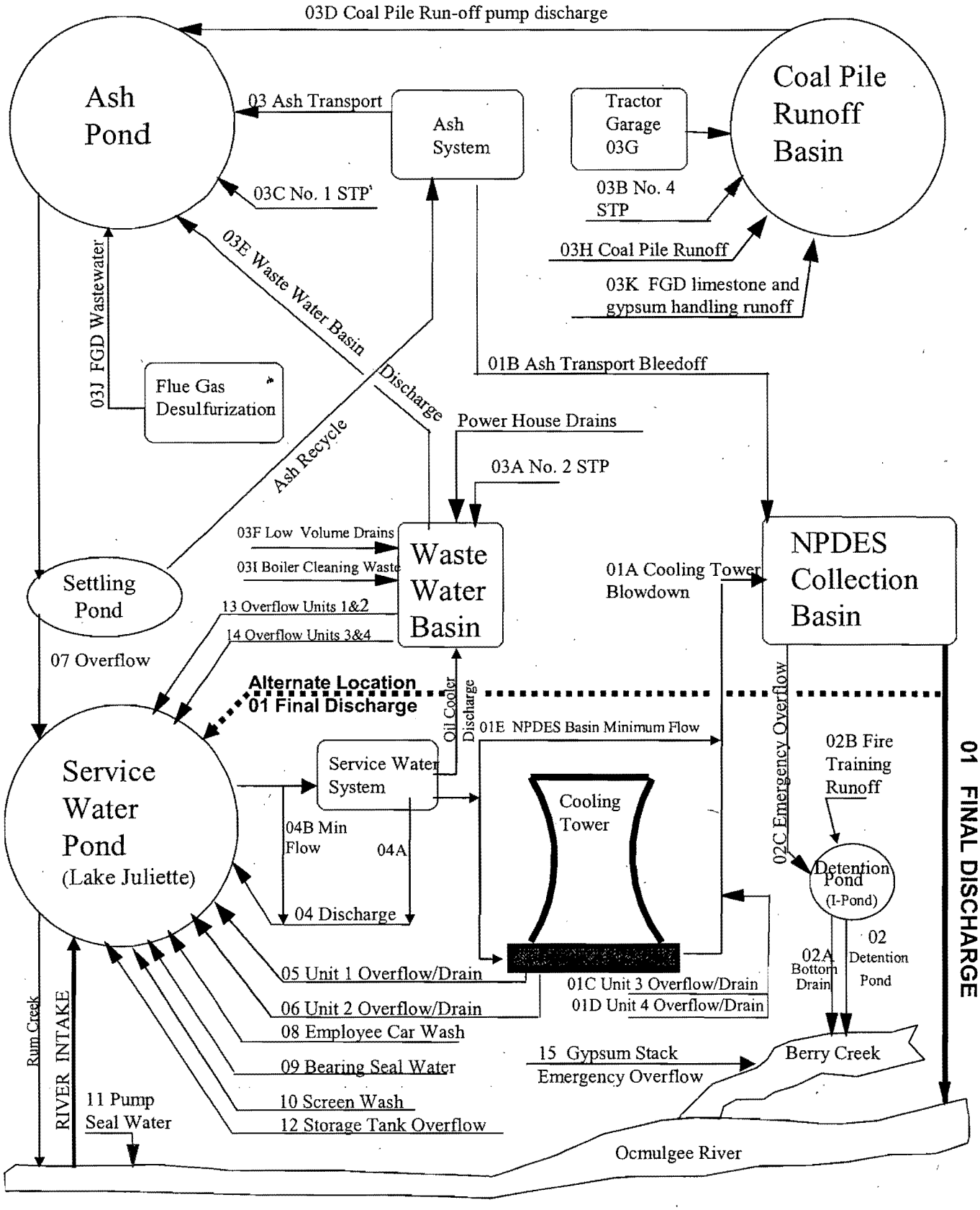
Notes:
1. All other pollutants listed in Table 2D-2 are believed to be not present in these effluents.
2. Refer to Form 2D, Part VII for information regarding relevance and limitations of this data.
3. Source Code 1 indicates this data is from analyses of pilot plant wastewater as discussed in Part IV
4. Flow rates apply to the proposed Plant Scherer FGD facility (preliminary design estimates).

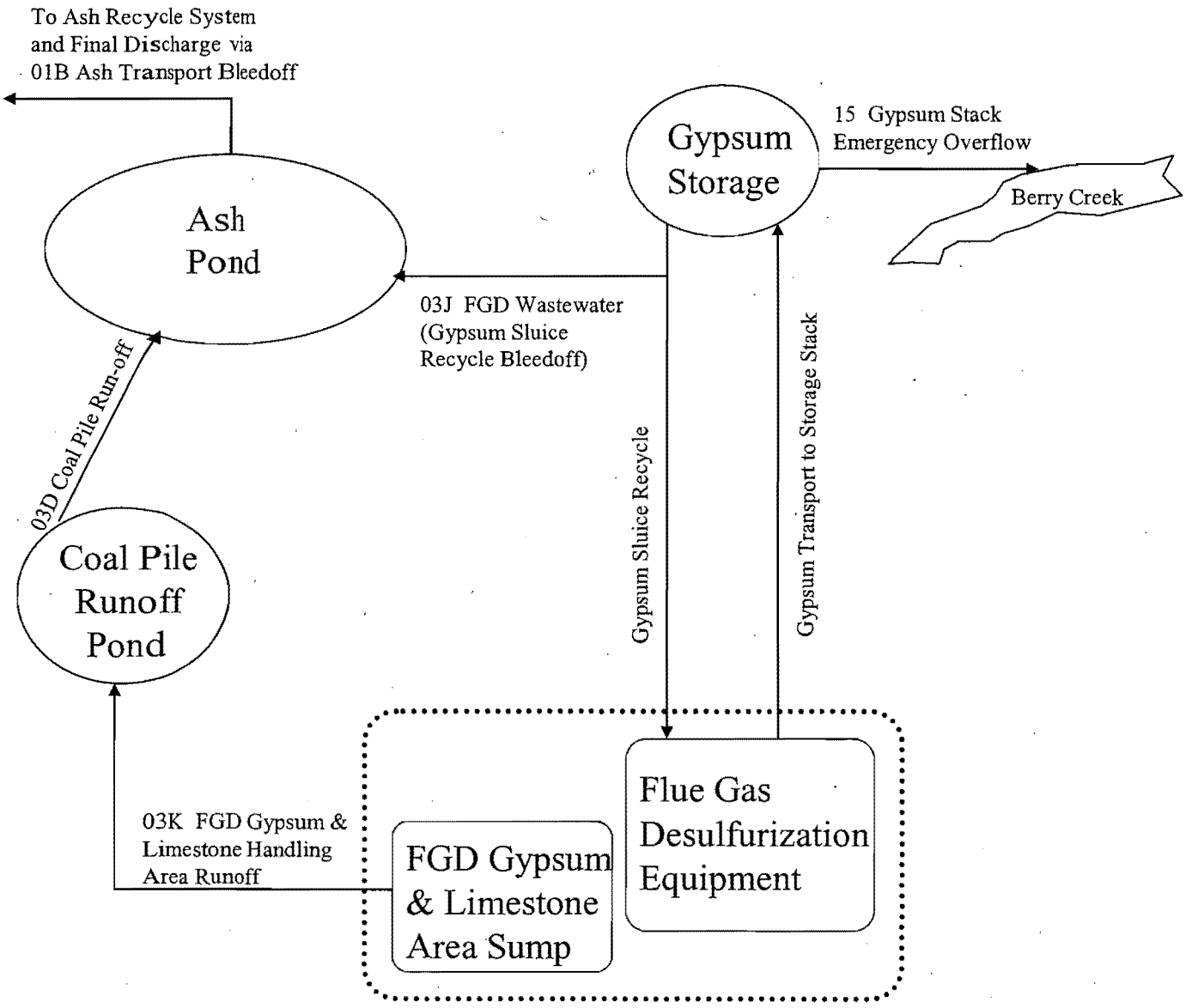


Plant Scherer NPDES Flow Diagram
Page 2 FGD Waste Stream Details
NPDES Permit No. GA0026051 Dec. 2007

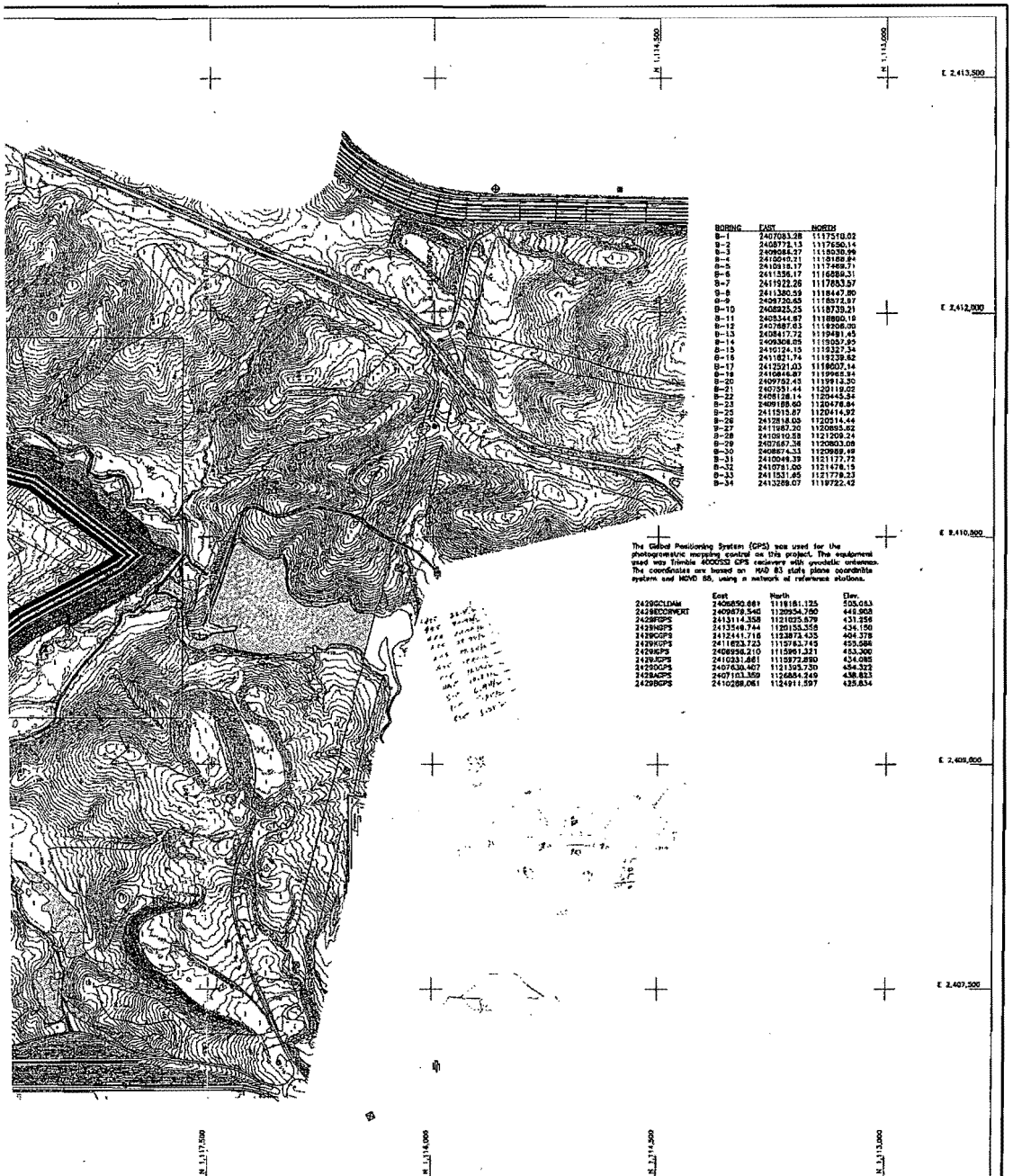
Plant Scherer NPDES Flow Diagram

NPDES Permit No. GA0026051 Dec. 2007





Plant Scherer NPDES Flow Diagram
Page 2 FGD Waste Stream Details
NPDES Permit No. GA0026051 Dec. 2007



BORING	EAST	NORTH
B-1	2407083.28	1117510.02
B-2	2408772.13	1117650.14
B-3	2409084.27	1118030.99
B-4	2410040.21	1118188.94
B-5	2410918.17	1117469.71
B-6	2411356.17	1116889.31
B-7	2411922.26	1117883.57
B-8	2411380.59	1118447.80
B-9	2409720.65	1118572.87
B-10	2408925.25	1118739.21
B-11	2408344.87	1118800.19
B-12	2407687.03	1119206.00
B-13	2408417.72	1119491.45
B-14	2409308.05	1119057.95
B-15	2410124.15	1119327.34
B-16	2411821.74	1119239.62
B-17	2412521.03	1119007.14
B-18	2410846.87	1119965.94
B-20	2409752.45	1119913.30
B-21	2407551.44	1120119.02
B-22	2408128.14	1120445.54
B-23	2409188.60	1120478.84
B-25	2411515.87	1120414.92
B-26	2412818.05	1120514.44
B-27	2411987.20	1120895.62
B-28	2410910.58	1121209.24
B-29	2407667.36	1120803.08
B-30	2408674.33	1120969.49
B-31	2410049.39	1121177.72
B-32	2410781.00	1121478.15
B-33	2411531.65	1121779.23
B-34	2413289.07	1119722.42

The Global Positioning System (GPS) was used for the photogrammetric mapping control on this project. The equipment used was Trimble 4000SSI GPS recievers with geodetic antennas. The coordinates are based on NAD 83 state plane coordinate system and NGVD 88, using a network of reference stations.

	East	North	Elev.
2429GCLDAM	2406850.661	1119161.125	505.063
2429ECCRVERT	2409879.540	1120954.760	446.908
2429FGPS	2413114.358	1121025.679	431.256
2429HGPS	2413549.744	1120155.358	434.150
2429CGPS	2412441.716	1123873.435	404.378
2429KGPS	2411623.723	1115763.745	455.586
2429JGPS	2408956.210	1115961.321	453.300
2429JCPS	2410231.661	1115972.890	454.085
2429DGPS	2407630.407	1121395.730	454.322
2429AGPS	2407103.359	1126884.249	458.823
2429BGPS	2410288.061	1124911.597	425.834

LEGEND

- BUILDING
- HEADWALL/CULVERT
- CATCH BASIN
- DROP INLET
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- SPOT ELEVATION
- G.P.S. SURVEY MONUMENT
- RAILROAD
- MANHOLE
- POWER POLE
- LIGHT POLE
- STREET LAMP
- GUY WIRE
- TRANSFORMER
- SIGNS 1 & 2 POST
- HYDRANT
- UNKNOWN OBJECTS

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TOPOGRAPHIC MAP PREPARED FOR
GEORGIA POWER COMPANY
Plant Scherer
CCB Storage Facility
MONROE COUNTY, GEORGIA
DATE OF PHOTOGRAPHY: 04-08-2008 & 03-13-2007

PROJECT NO: 13028
07-08-2007

Drawing name: S:\Workgroups\SCS Engineering\Technical Services\Earth Sciences and Environmental Engineering\ESEE MAJOR PROJECTS\PROJECTS\S

Plant Scherer NPDES Permit No. GA0035564
Renewal Application Item Number 8

The information below summarizes Georgia Power Company water quality studies of Lake Juliette in the presence of discharges from outfall number 04, Service Water Final Discharge.

TROPHIC STATE INDEX OF LAKE JULIETTE, CALCULATED FROM T-PO4, CHL a, AND SECCHI DEPTH NEAR THE DAM FOREBAY

Year	T-PO4	CHLa	Secchi Depth	Mean TSI
1994	43	19	45	36
1995	not sampled in 1995			
1996	not sampled in 1996			
1997	37	33	50	40
1998	ND*	51	46	48
1999	37	33	50	40
2000	ND	29	49	39

ND = not detected (<0.02 ppm)

FECAL COLIFORM DATA

Year	n	Minimum	Maximum	Mean
1994	4	0	0	0
1995	0	not sampled in 1995		
1996	0	not sampled in 1996		
1997	1			10
1998	1			5
1999	3	5	10	7

Lake Juliette stratifies thermally and chemically during the summer months. Extensive aquatic plants in the lake are believed responsible for clear water. Chlorophyll *a* and total phosphorus values are low, with secchi depth values ranging from 4-18.5 ft., with a mean of 10.47 ft, resulting in Trophic State Index estimates in the mesotrophic range as calculated by Carlson (1977). Coliform data indicate values acceptable for contact recreation.

The 2001 edition of Guidelines for Eating Fish From Georgia Waters, 2001 indicates no fish consumption advisory for Lake Juliette. This is based on GA DNR analysis of 43 separate contaminates, including metals, organic chemicals, and pesticides.

Based on the information summarized from Georgia Power Reservoir Water Quality reports, and GA DNR fish consumption advisory data, it appears that Lake Juliette has acceptable water quality for fishing and contact recreation.

EVALUATION OF WATER QUALITY IN GEORGIA POWER RESERVOIRS DURING 2001

Introduction

Georgia Power Company's reservoirs were sampled during 2001 to evaluate basic water chemistry, temperature, and dissolved oxygen (DO). Water clarity was also measured using a Secchi disc. This report summarizes by reservoir: temperature, DO, secchi depth, total phosphorus (T-PO4), chlorophyll *a* (Chl*a*), and fecal coliform data. Estimates of each reservoir's trophic status are also provided.

Reservoir DO values are a function of air temperature, mixing by wind or other forces, plankton photosynthesis, and oxygen consuming materials in the water column. Adequate DO is necessary for a healthy population of fish and invertebrates in our reservoirs.

Total phosphorus measurements provide an estimate of the nutrient most likely limiting phytoplankton growth. Chl*a* data measure photosynthetic pigment found in phytoplankton and reflect available nutrients, flow, temperature, reservoir stratification, turbidity, and many other factors. These two measurements describe an important nutrient and phytoplankton biomass, which is the base of the reservoir food chain.

Secchi values measure the depth at which a circular disc disappears in the water column. These values are a function of phytoplankton growth and non-algal turbidity entering from the watershed. Water green with phytoplankton or brown from non-algal turbidity will have a shallower secchi depth than water with little phytoplankton or non-algal turbidity.

Fecal coliform data indicate possible sanitary waste inflows from upstream sources or leaking septic systems. Fecal data may also reflect runoff from pasturelands and deposits by waterfowl.

Chl*a*, secchi depth, and T-PO4 data are used to estimate reservoir trophic status using methods developed by Dr. Bob Carlson in 1977. Trophic ranges include oligotrophic, mesotrophic, and eutrophic, which are descriptors of reservoir productivity. Dr. Carlson's Trophic State Index (TSI) ranges are:

Less than or equal to 30	- Oligotrophic
Greater than 30 and less than 60	- Mesotrophic
Greater than or equal to 60	- Eutrophic

Oligotrophic reservoirs are low in productivity, have very clear water, and support few pounds of fish per acre. At the other extreme, eutrophic reservoirs are very productive, and may be dark green due to dense phytoplankton. Mesotrophic reservoirs are between the extremes. Eutrophic waters generally have more pounds of fish per acre, and higher biomass of microscopic phytoplankton and/or aquatic plants. Eutrophic waters may experience very high and very low DO concentrations during a diel (day/night) cycle.

Methods

Water chemistry and temperature / DO profiles were collected at GPC reservoirs at least three times during 2001, except Harding was sampled twice for chemical parameters. Goat Rock, North Highlands, Oconee, and Oliver were sampled quarterly. The remaining reservoirs were sampled during June, August, and November. New field profile equipment allowed turbidity data to be collected in place of oxidation/reduction potential data.

Chemistry samples were collected at the dam forebays except for:

Burton	- Goldmine Branch subdivision, Timpson Cove beach, and Tallulah River near the runoff from the new golf course
Harding	- Mountain Oak Creek
Oconee	- Dam forebay (surface, middle and bottom), Lick Creek, and Sugar Creek
Rabun	- Rabun beach
Seed	- Recreation / beach area
Sinclair	- Four Main Channel Sites (SI), including the dam forebay Four Cove Sites (SC), selected from an intensive study of coves in 1998. Selective sampling continues in order to evaluate trends.

Chemistry sample analyses included T-PO4, Chl*a*, and fecal coliform data described in this report. Other analyses varied depending on re-licensing status, local interest, and other requests. All results are summarized by reservoir and sampling location in the Appendix. Data are maintained in the Environmental Laboratory water quality database.

Independent contractors sampled weekly at GPC beaches from the last week of May to Labor Day weekend. These beaches were analyzed for fecal coliform: Burton, Seed, Tallulah Falls (two locations), Jackson, Oconee, and Sinclair. Values exceeding the recreation standard (200/100ml) over two consecutive days will result in beach closure until daily sampling indicates a geometric mean less than 200/100 ml over the previous four samples.

Results and Discussion

Table 1 contains mean summer (June-September) temperature, DO, and secchi depth. Mean summer temperatures and DO values for each reservoir are shown in bar graph form in Figure 1. The "n" values in this and other tables represent the number of data points used to calculate averages.

Average water chemistry (T-PO4, Chl*a*) and fecal coliform data for each reservoir are shown in Table 2. The fecal coliform "greater than" values were used to calculate averages reported in Table 2. Figure 2 is a graph of the average and maximum fecal coliform data compared to the State DNR recreation standard. Figure 7 is a graph of beach fecal coliform analyses by independent contractors.

The trophic status of each reservoir calculated from T-PO4, Chl*a*, and secchi depth is noted in Table 3. The average trophic status for each reservoir is shown in Figure 3. Also noted in Figure 3 are dividing lines for eutrophic, mesotrophic, and oligotrophic status.

The mean, minimum and maximum analyte values including standard deviation for each reservoir are summarized in the Appendix. A list of detection limits for each analysis is also contained in the Appendix. Note that the analysis minimum results are raw values – any result less than the detection limits for a sample should be considered as "less than" the noted detection limit.

During summer (June-September), the three warmest (mean water column) reservoirs were Sinclair Coves (30.0°C) and Oliver / North Highlands (tied at 28.8°C), as noted in Table 1. They were 1.8 and 0.4/0.2°C cooler, respectively, than in 2000. Each of these reservoirs is thermally mixed, without cooler bottom waters normally found in southeastern reservoirs. Sinclair is mixed due to pump/storage operations. Oliver and North Highlands are mixed due to their short detention times (2.4 days or less at average flow).

The three coolest reservoirs, Tugalo (16.0°C), Tallulah Falls (19.87°C), and Burton (19.9°C), develop significant summer stratification. Tugalo was 1.6°C cooler; Tallulah Falls was 2°C cooler; and Burton was 1.3°C cooler, respectively, in 2001 compared to 2000.

The data in Table 1 indicate that the GA State DO reservoir standards (5.0 mg/l daily average, no measurement less than 4 mg/l, at 1 meter depth) were met in all reservoirs. The two reservoirs with the highest mean water column DO were Sinclair Coves (7.7 mg/l) and Seed (7.4 mg/l). These DO values, respectively, were 0.6 and 0.5 mg/l higher in 2001 compared to 2000.

The lowest mean water column DO of 3.4 mg/l was at Harding. This value was 0.3 mg/l lower than the lowest mean water column value for 2000 (Harding, 3.7 mg/l). Unpublished data from West Point Reservoir indicate low DO water discharges from it may affect Lake Harding. Also, Lake Harding experiences significant temperature stratification during summer, which helps deplete oxygen below the thermocline. The average DO in Harding at 1 meter during summer was 6.9 mg/l, in compliance with the GA State standard.

Tugalo had the highest average fecal coliform value, 25/100 ml for 2001 (Table 2), which was higher than 1/100 ml found in 2000. The maximum value of 152/100 ml was found in Oconee, on February 21, station 9, and was reported as "greater than" 152/100 ml. Tugalo had the second highest maximum coliform value of 76/100ml. The GA DNR standard for fecal coliform of 200/100 ml requires a log mean of four successive measurements over 30 days to exceed 200/100ml. None of the reservoir means exceeded 200/100 ml as noted in Figure 2.

No beaches were closed as a result of beach fecal coliform analyses. There were three beaches that exceeded the recreation standard in 2000 (Jackson, Seed and Tallulah Falls).

Figure 3 indicates that the mean TSI of all GPC reservoirs continues to be in the mesotrophic range. This year Tallulah Falls exhibited the maximum TSI value, due to a single total phosphorus value of 0.11 mg/l and two zero values (Table 2, and the Appendix). The TSI calculation log function excluded the zero values, inflating the apparent "mean" for Tallulah Falls. Normally, Lakes Harding, Jackson, Oconee and Sinclair exhibit higher average TSI values, and the North Georgia lakes exhibit minimum TSI values.

All of the mean Chl*a* values in GPC reservoirs noted in Table 2 are lower than standards set by the GA DNR for lakes Walter F. George (15-18 µg/l), Jackson (20 µg/l), and West Point (27 µg/l). These standards represent the upper expected mean Chl*a* levels, with higher levels resulting in eutrophic conditions, and State action to reduce mean Chl*a* levels. Lake Sinclair (Coves and Main Channels) continues to have the upper levels of Chl*a* in GPC reservoirs (Table 2). The maximum Chl*a* value of 23.1 µg/l was noted in Sinclair Coves (Appendix).

However, the overall mean Chl*a* values in 2000 (2.9 µg/l) were higher than those for 2001 (1.4 µg/l, assuming a "1" for each <1 value in Table 2). Mean total phosphorus values for 2001 (0.02 mg/l) were slightly higher than those for 2000 (0.01 mg/l), assuming a 0.01 value for reservoir means reported as "<0.01 mg/l". This may be related to the drought conditions the State has been in for the last 3 years, as Chl*a* values would be expected to increase with increased phosphorus values.

Previous reports indicated higher Chl*a* and total phosphorus values in Lake Oconee, particularly Lick and Sugar Creeks. This year mean Chl*a* values (<1 µg/l) were much lower than previously noted (14 µg/l in 2000) while total phosphorus values remained the same (0.03mg/l). The US Department of Agriculture in Watkinsville GA continues to work on methods to reduce non-point source loading to the Oconee watershed. Information about the Oconee River Basin Agricultural Conservation Efficacy (ORBACE) project can be found on the web at:

http://www.spcru.ars.usda.gov/orbace1.html

Three reservoirs (Harding, Oconee, and Sinclair Main Channels) have data for which TSI values are calculated from 1979 (Figures 4-6, respectively). Available data was used to calculate TSI values, and for some years only T-PO4 or secchi values were available. TSI values calculated from Chl*a* for Harding have declined yearly from 1997 to 2000, and this year noted a slight increase from 34 to 35. Oconee and Sinclair TSI estimates continue to be in the upper mesotrophic range.

The heavy metal arsenic was detected at Goat Rock, Station 5 (Dam forebay) on Feb. 14, 2001 at 0.0011 mg/l (detection limit 0.001 mg/l). Analyses for heavy metals were performed on samples from Goat Rock, Oliver, and North Highlands only. No other heavy metals were detected during 2001. Total suspended solids (TSS) in this sample were 3 mg/l. This sample was not filtered before analysis, and the metal detected was likely part of the water column TSS.

The GA DNR assesses the levels of metals and pesticides in fish and issues consumption guidelines to protect consumers. Fish consumption guidelines (2001 Update) from the GA DNR can be found on their web site (http://www.dnr.state.ga.us) by selecting the Environmental icon as noted below and finding Guidelines for Eating Fish in the resulting page:

Click on "Fish Consumption Guidelines" and go to "Fish Consumption Guidelines, 2001 edition" to find consumption limitations that currently exist in Georgia Power reservoirs. These include: Burton, Goat Rock, Harding, Jackson, Oconee, Oliver, Rabun, Tugalo and Worth. These guidelines are very conservative and recommend safe consumption levels based on fish type, size, meal frequency (no restrictions, one/week, or one/month), and whether you are pregnant.

Summary

GPC reservoirs have good water quality overall. Boating, fishing, and swimming are encouraged at appropriate sites.

The Trophic State Index shows our reservoirs to be in the Mesotrophic range. Lakes Harding, Jackson, Oconee and Sinclair are the most productive reservoirs, while the North Georgia reservoirs are the least productive, excluding Tallulah Falls which appears to be an anomaly in 2001. Oconee and Sinclair Trophic State Indices are remarkably stable over the past 22 years. The Trophic Status of Harding appears to be on a downward trend since 1994.

Fecal coliform values at one GPC beach (Seed) exceeded 200/100 ml. Heavy metals detected in our reservoirs are likely from suspended solids that come from the watershed. GPC intends to continue monitoring its reservoirs on a regular basis to document water quality conditions and trends.

TABLE 1. AVERAGE SUMMER (JUNE-SEPTEMBER) FIELD WATER QUALITY DATA MEASURED IN GPC RESERVOIRS DURING 2001

	MEAN WATER COLUMN TEMP. (C)	n	MEAN WATER COLUMN D.O. (MG/L)	n	MEAN D.O. AT 1 METER (MG/L)	n	MEAN SECCHI DEPTH (FT)	n
BURTON	19.9	134	7	134	7.9	14	11.2	13
GOAT ROCK	27.9	30	5	30	5.4	3	6	3
HARDING	23.7	149	3.4	149	6.9	9	6	6
JACKSON	24.4	137	4.4	137	9.1	12	4.1	12
JULIETTE	22.7	73	4.8	73	7.8	6	9	6
N. HIGHLANDS	28.8	26	5.6	26	5.9	3	7.5	2
OCONEE	28.6	109	4.4	109	6	8	3	9
OLIVER	28.8	56	5.8	56	6.6	6	5.9	6
RABUN	20.2	74	6.4	74	7.7	6	11.2	6
SEED	20.4	68	7.4	68	8.5	8	10.1	7
SINCLAIR MAIN CHANNEL	27.5	92	4.9	92	6.9	8	2.4	8
SINCLAIR COVES	30	18	7.7	18	7.6	6	2.1	8
TALLULAH FALLS	19.8	32	5.4	32	7.6	2	8.4	2
TUGALO	16	110	5.8	110	7.6	6	8.9	6
WORTH	26.4	79	5.4	79	6.2	10	4.4	10
YONAH	23.1	67	6.4	67	7.4	6	10	6

NOTE: WATER COLUMN DATA ARE AVERAGES OF SURFACE TO BOTTOM DATA COLLECTED AT ALL SAMPLING SITES IN EACH RESERVOIR

VALUES OF "n" ARE NUMBER OF MEASUREMENTS USED TO CALCULATE AVERAGES

TABLE 2. SELECTED AVERAGE WATER CHEMISTRY DATA COLLECTED AT THE SURFACE IN GPC RESERVOIRS, 2001

RESERVOIR	T-PO4 (mg/l)	n	CHLOROPHYLL a (ug/l)	n	FECAL COLIFORM (#/100 ml)	n	MAXIMUM COLIFORM
BURTON	0.01	6	1.2	6	4	9	19
GOAT ROCK	0.01	8	<1	8	3	8	7
HARDING	0.02	2	1.6	2	2	2	5
JACKSON	0.01	3	<1	3	0	3	0
JULIETTE	<0.01	3	<1	3	0	3	0
N. HIGHLANDS	0.01	4	<1	4	4	4	7
OCONEE	0.03	12	<1	12	18	12	152
OLIVER	0.01	4	<1	4	3	4	5
RABUN	<0.01	3	1.1	3	6	3	15
SEED	<0.01	3	<1	3	2	3	5
SINCLAIR COVES	0.04	12	3	12	18	12	49
SINCLAIR MAIN CHANNEL	0.03	12	4	12	6	12	31
TALLULAH FALLS	0.04	3	1.1	3	14	3	42
TUGALO	0.02	3	1.3	3	25	3	76
WORTH	0.02	3	1.8	3	17	3	29
YONAH	<0.01	3	1.1	3	5	3	13

NOTE: DATA ARE AVERAGES OF ALL WATER CHEMISTRY SAMPLES COLLECTED IN EACH RESERVOIR. VALUES UNDER "n" ARE NUMBERS OF SAMPLES USED TO CALCULATE AVERAGES.

TABLE 3. TROPHIC STATUS OF GPC RESERVOIRS, CALCULATED FROM T-PO4, CHLa, AND SECCHI DEPTH, 2001

	TROPHIC STATUS			MEAN TROPHIC STATUS	
	T-PO4	CHLa	SECCHI		
BURTON	41	32	52	42	
GOAT ROCK	41	24	51	39	
HARDING	47	35	51	44	
JACKSON	37	27	53	39	
JULIETTE	*	25	49	37	**
N. HIGHLANDS	40	28	51	40	
OCONEE	52	28	53	44	
OLIVER	41	29	51	40	
RABUN	*	31	48	40	**
SEED	37	28	49	38	
SINCLAIR COVES	57	38	56	50	
SINCLAIR MAIN CHANNEL	53	38	54	48	
TALLULAH FALLS	72	29	51	51	
TUGALO	49	33	51	44	
WORTH	47	32	54	44	
YONAH	37	31	50	39	

* ND=NOT DETECTED

** MEAN TROPHIC STATUS CALCULATION BASED ON CHLa AND SECCHI DEPTH ONLY WHERE T-PO4 NOT DETECTED

FIGURE 1. AVERAGE SUMMER TEMPERATURE AND DISSSOLVED OXYGEN (WATER COLUMN AND 1M DEPTH) IN GPC RESERVOIRS, 2001

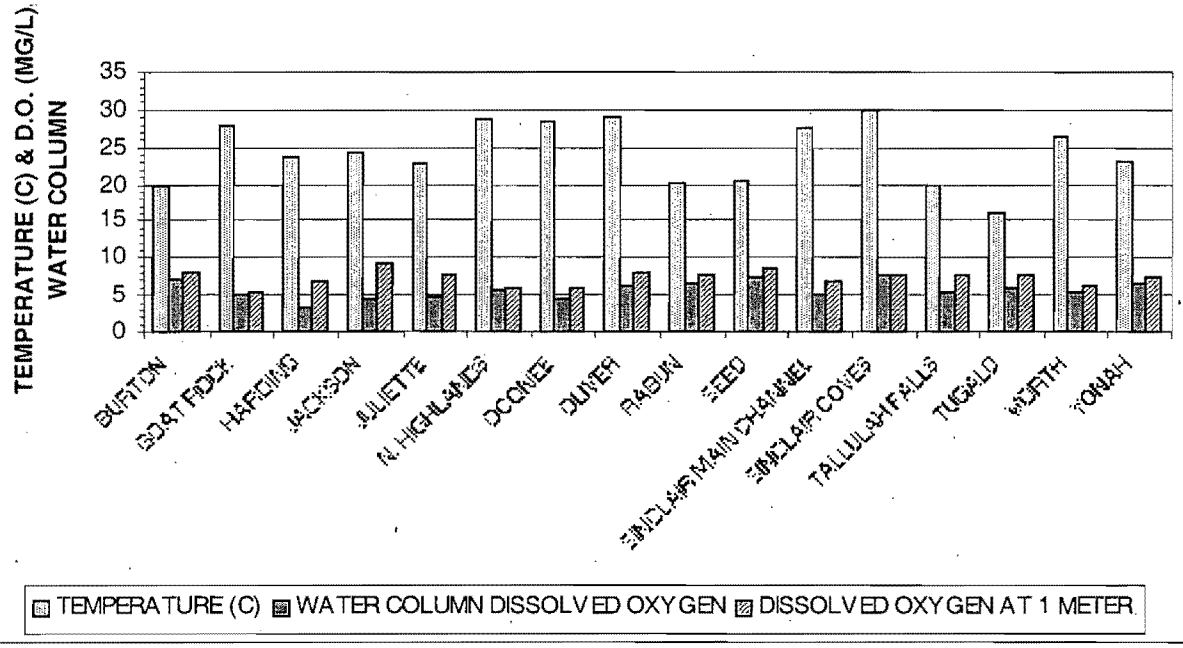
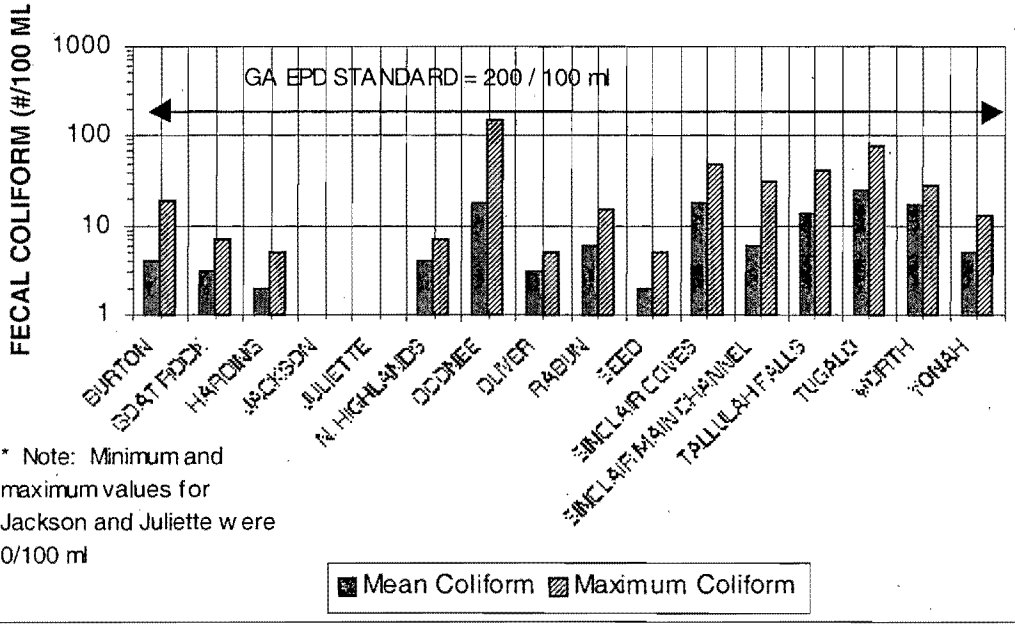


FIGURE 2. AVERAGE AND MAXIMUM FECAL COLIFORM DATA COLLECTED FROM GPC RESERVOIRS, 2001



* Note: Minimum and maximum values for Jackson and Juliette were 0/100 ml

FIGURE 3. AVERAGE TROPHIC STATUS OF GPC RESERVOIRS, 2001, CALCULATED FROM TOT-P, CHLa, AND SECCHI DEPTH

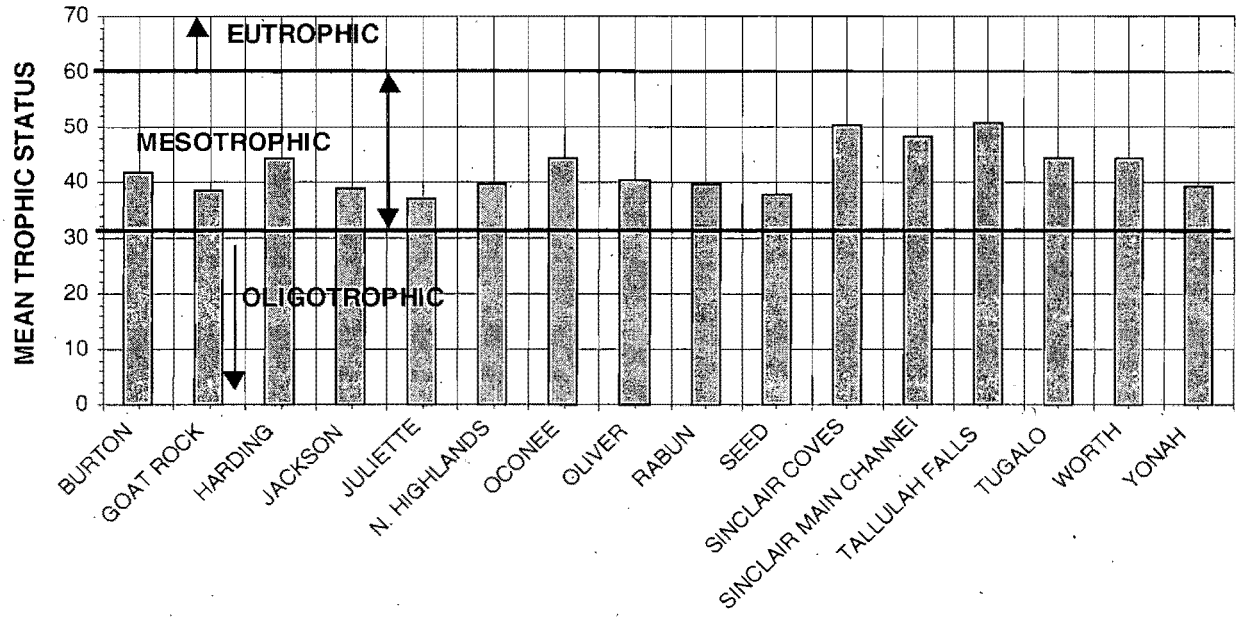


FIGURE 4. HARDING TROPHIC STATE ESTIMATES, 1979-2001

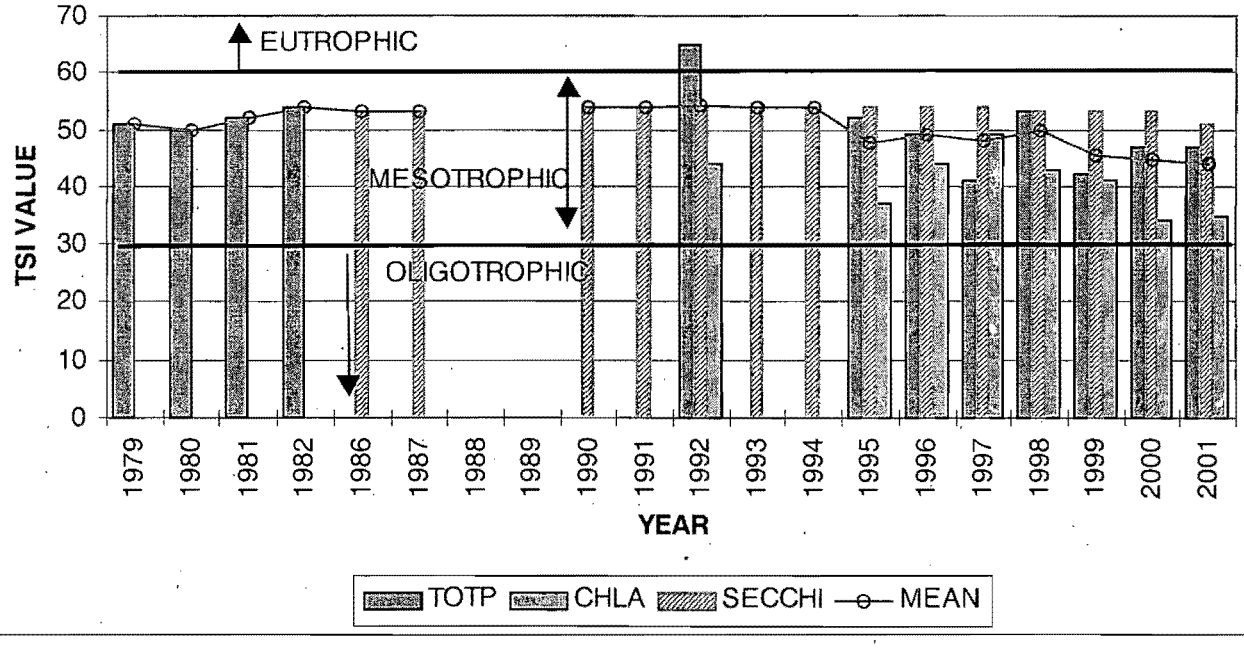


FIGURE 5. OCONEE TROPHIC STATE ESTIMATES, 1979-2001

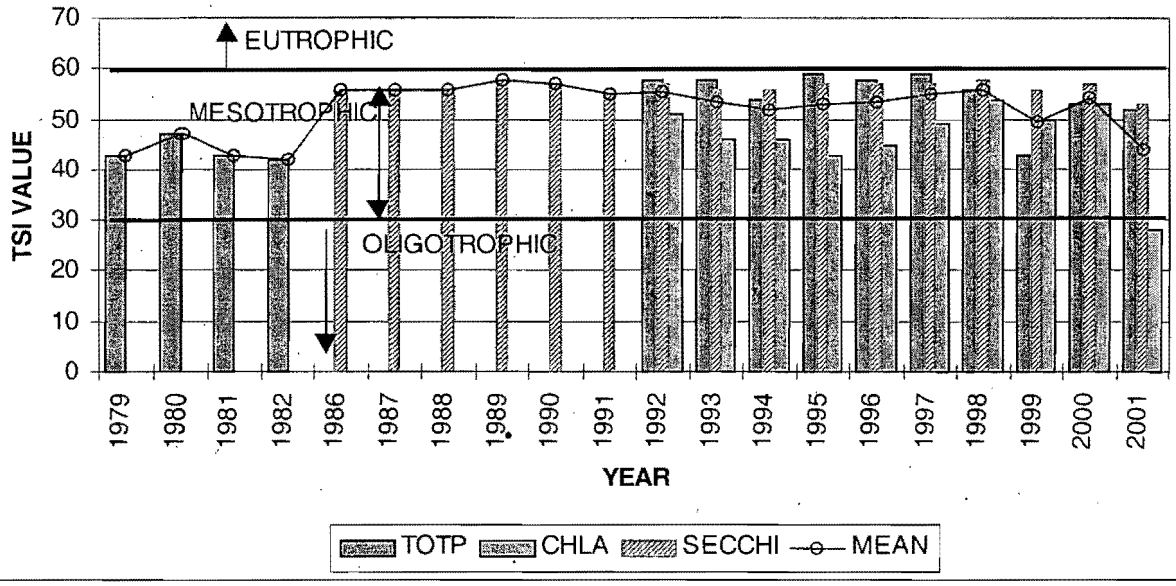


FIGURE 6. SINCLAIR TROPHIC STATE ESTIMATES, 1979-2001

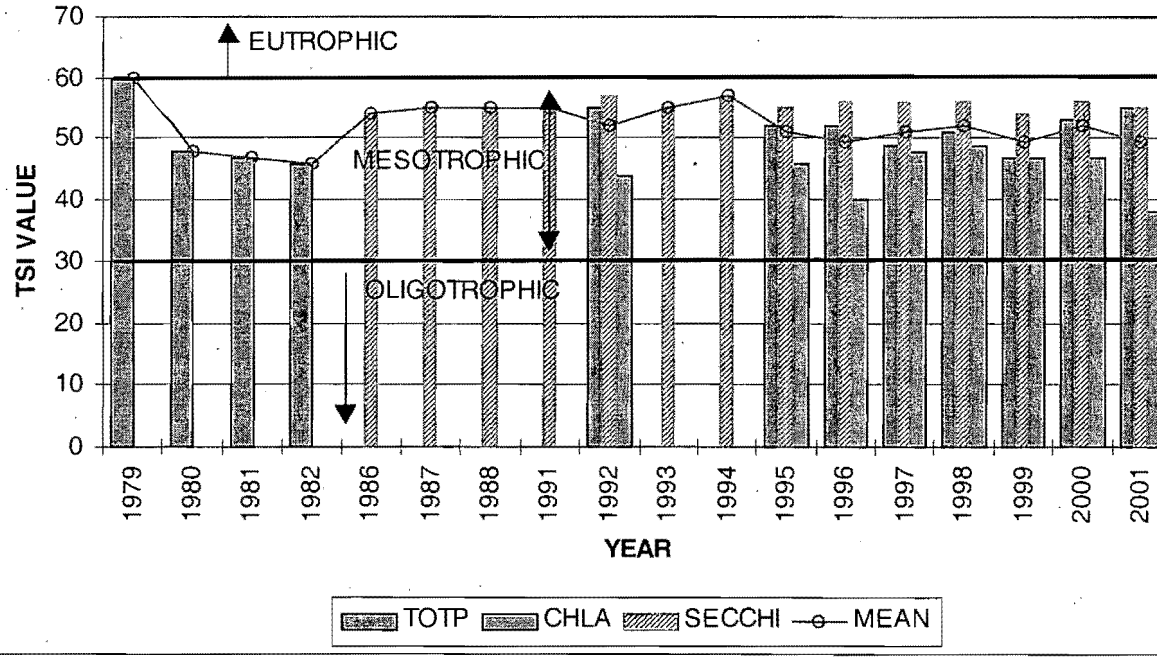
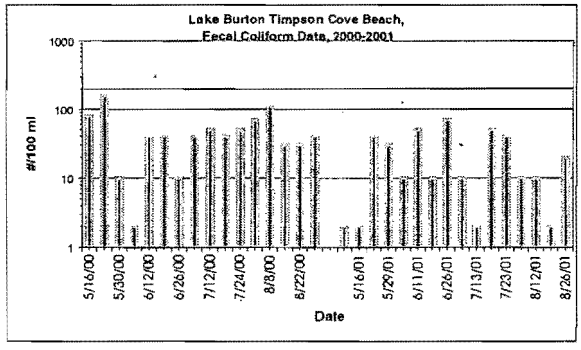
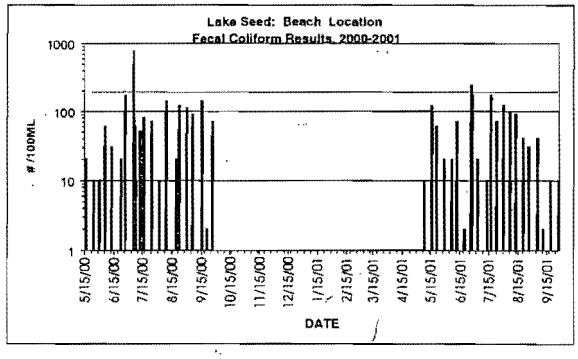


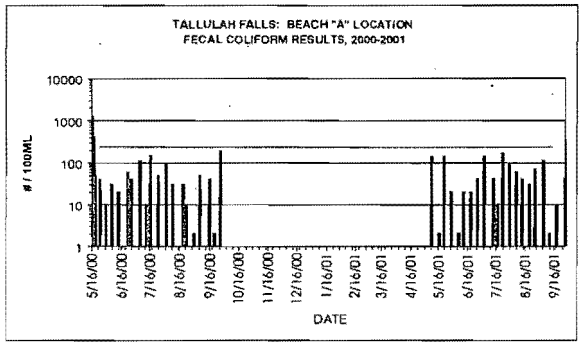
FIGURE 7. GPC BEACH COLIFORM DATA, 2001

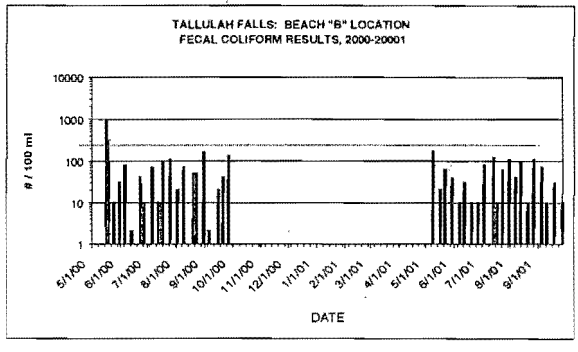
NORTH GEORGIA RESERVOIR BEACH FECAL COLIFORM DATA





THE STATE RECREATION STANDARD IS 200/100ML

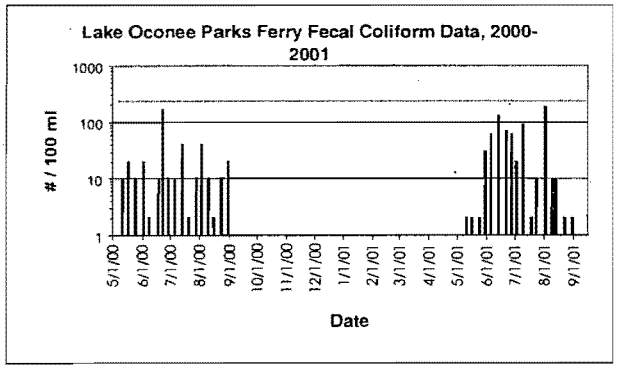


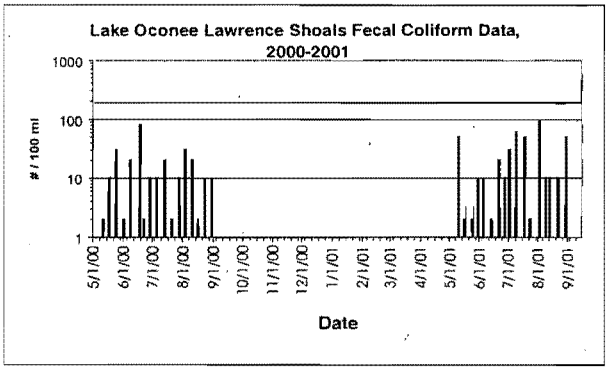


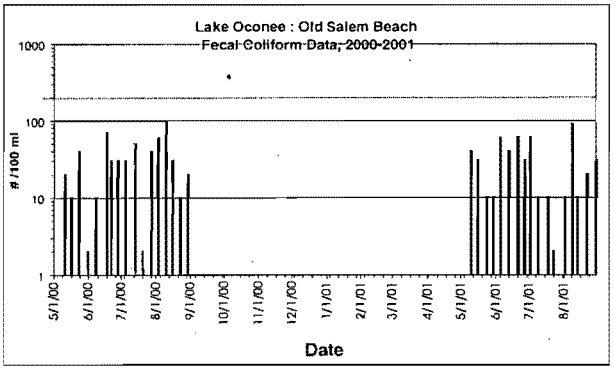
Note : Non-detected coliforms are plotted as a "2" in order to show a data point

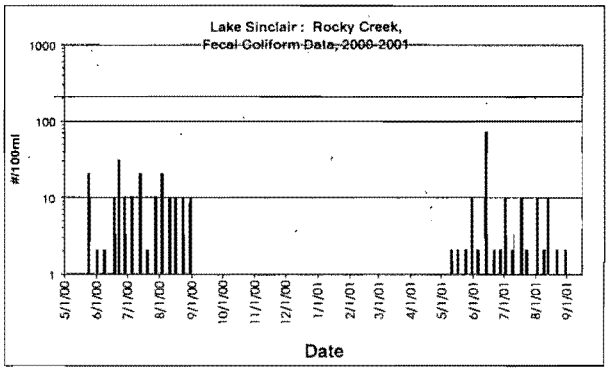
FIGURE 7. GPC BEACH COLIFORM DATA, 2001 (continued)

MIDDLE GEORGIA RESERVOIR BEACH COLIFORM DATA

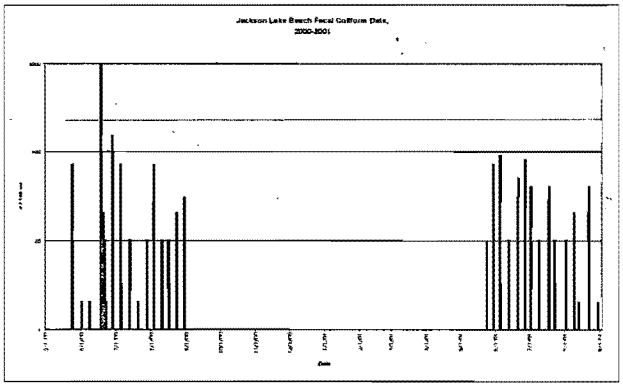








THE STATE RECREATION STANDARD IS 200/100ML



NOTE : NON-DETECTED COLIFORMS ARE PLOTTED AS A "2"
IN ORDER TO SHOW A DATA POINT

APPENDIX

GPC RESERVOIR WATER CHEMISTRY DATA SUMMARY, 2001

Reservoir site abbreviations are: BU= Burton, GR= Goat Rock, HA= Harding, JA= Jackson, JU = Juliette, NH = North Highlands, OC = Oconee, OL= Oliver, RA= Rabun, SC= Sinclair Cove, SE= Seed, SI= Sinclair Main Channel, TA= Tallulah Falls, TU= Tugalo, WO= Worth, YO= Yonah

Note: Data in the following pages are raw laboratory numbers. Results (including negative numbers) reported as less than the following detection limits should be considered as "less than" the detection limit for the parameter. The letter "n" is the number of analyses.

DETECTION LIMIT	ANALYTE
2	Alkalinity
0.03	Ammonia
0.001	Arsenic
2	Biochemical Oxygen Demand
0.004 –0.005	Cadmium
0.051-0.210	Calcium
1.0	Chlorophyll a
0.011	Copper
0	Fecal Coliform
0.053-0.064	Iron
0.011	Lead
0.085-0.088	Magnesium
0.003-0.005	Manganese
0.00015	Mercury
0.026-0.028	Nickel
0.053-0.030	Nitrate
0.006	Selenium
0.010	Total Phosphorus
1.00	Total Suspended Solids
0.05	Turbidity

NOTE: All detection limits are in mg/l, except chlorophyll a, which is in ug/l; fecal coliform which is in colonies/100ml, and turbidity which is in NTU. Ranges in detection limits are due to laboratory Quality Control revisions or subcontractor detection limits for samples analyzed by contractors.

GPC RESERVOIR WATER QUALITY, 2001
RESERVOIR SUMMARY STATISTICS

RESERVOIR	DEPTH	ANALYTE	N	MINIMUM	MAXIMUIM	MEAN	STD.DEV.
Burton	SURFACE	TOTAL SAMPLES	70	0.00000	47.34886	6.26404	11.73685
Burton	SURFACE	Alkalinity	6	8.50000	10.10000	9.38333	0.64317
Burton	SURFACE	Ammonia	4	0.00170	0.03390	0.01243	0.01454
Burton	SURFACE	Calcium	6	1.32600	1.65552	1.55162	0.12242
Burton	SURFACE	Chlorophyll a	6	0.72620	1.68920	1.22730	0.44848
Burton	SURFACE	Fecal Coliform	9	0.00000	19.00000	4.22222	5.82619
Burton	SURFACE	Magnesium	6	0.44810	0.62698	0.51895	0.06199
Burton	SURFACE	Nitrate	6	0.00000	0.09350	0.02942	0.04569
Burton	SURFACE	Nitrite	6	0.00000	0.00000	0.00000	0.00000
Burton	SURFACE	TSI CHLOROPHYLL a	6	27.43038	35.71211	31.99555	3.75364
Burton	SURFACE	TSI TOTAL PHOSPHORUS	3	37.35368	47.34886	40.68540	5.77072
Burton	SURFACE	Total Phosporus	6	0.00000	0.02000	0.00667	0.00816
Burton	SURFACE	Turbidity	6	1.30000	2.20000	1.68333	0.41673
Goat Rock	SURFACE	TOTAL SAMPLES	180	-0.00650	47.34886	4.83792	10.61738
Goat Rock	SURFACE	Alkalinity	8	16.90000	29.20000	24.87500	4.50420
Goat Rock	SURFACE	Ammonia	6	0.00000	0.28800	0.07122	0.10866
Goat Rock	SURFACE	Arsenic	8	-0.00038	0.00108	0.00009	0.00046
Goat Rock	SURFACE	Bioch Oxygen Demand	6	0.24000	0.95000	0.56667	0.30781
Goat Rock	SURFACE	Cadmium	8	-0.00170	0.00120	0.00011	0.00091
Goat Rock	SURFACE	Calcium	8	3.94700	7.84301	6.15298	1.43681
Goat Rock	SURFACE	Chlorophyll a	8	0.12460	1.44630	0.63480	0.45554
Goat Rock	SURFACE	Copper	8	-0.00010	0.00560	0.00239	0.00241
Goat Rock	SURFACE	Fecal Coliform	8	0.00000	7.00000	3.12500	2.58775
Goat Rock	SURFACE	Iron	8	0.13280	0.61990	0.28909	0.18821
Goat Rock	SURFACE	Lead	8	-0.00015	0.00298	0.00127	0.00106
Goat Rock	SURFACE	Magnesium	8	1.35700	1.82462	1.63023	0.16265
Goat Rock	SURFACE	Manganese	8	0.02120	0.16484	0.07770	0.05048
Goat Rock	SURFACE	Mercury	8	-0.00006	0.00008	0.00003	0.00004
Goat Rock	SURFACE	Nickel	8	-0.00650	0.00360	-0.00000	0.00293
Goat Rock	SURFACE	Nitrate	8	0.30380	1.05340	0.58855	0.28941
Goat Rock	SURFACE	Nitrite	8	0.00000	0.08240	0.04646	0.03126
Goat Rock	SURFACE	Selenium	8	-0.00015	0.00125	0.00051	0.00051

ALL VALUES IN MG/L, EXCEPT CHLa WHICH IS IN UG/L, TURBIDITY, WHICH IS IN NTU, AND TSI WHICH IS NONDIMENSIONAL
TSI CALCULATIONS BASED ON CHLa AND TOTP VALUES GREATER THAN ZERO

GPC RESERVOIR WATER QUALITY, 2001
RESERVOIR SUMMARY STATISTICS

RESERVOIR	DEPTH	ANALYTE	N	MINIMUM	MAXIMUIM	MEAN	STD.DEV.
Goat Rock	SURFACE	TSI CHLOROPHYLL a	8	10.13756	34.18909	23.71628	7.68670
Goat Rock	SURFACE	TSI TOTAL PHOSPHORUS	8	37.35368	47.34886	41.10187	5.17300
Goat Rock	SURFACE	Total Phosporus	8	0.01000	0.02000	0.01375	0.00518
Goat Rock	SURFACE	Total Suspen. Solids	8	0.75000	3.00000	2.09375	0.82308
Goat Rock	SURFACE	Turbidity	8	1.70000	8.30000	4.02500	2.36205
Harding	SURFACE	TOTAL SAMPLES	23	0.00000	47.34886	11.45431	16.34278
Harding	SURFACE	Alkalinity	2	28.60000	30.00000	29.30000	0.98995
Harding	SURFACE	Ammonia	1	0.06330	0.06330	0.06330	.
Harding	SURFACE	Calcium	2	7.15700	8.23082	7.69391	0.75931
Harding	SURFACE	Chlorophyll a	2	1.29230	1.93580	1.61405	0.45502
Harding	SURFACE	Fecal Coliform	2	0.00000	5.00000	2.50000	3.53553
Harding	SURFACE	Magnesium	2	1.67700	1.75043	1.71372	0.05192
Harding	SURFACE	Nitrate	2	0.32680	0.75690	0.54185	0.30413
Harding	SURFACE	Nitrite	2	0.00000	0.08750	0.04375	0.06187
Harding	SURFACE	TSI CHLOROPHYLL a	2	33.08460	37.04892	35.06676	2.80320
Harding	SURFACE	TSI TOTAL PHOSPHORUS	2	47.34886	47.34886	47.34886	0.00000
Harding	SURFACE	Total Phosporus	2	0.02000	0.02000	0.02000	0.00000
Harding	SURFACE	Turbidity	2	5.60000	6.10000	5.85000	0.35355
Jackson	SURFACE	TOTAL SAMPLES	35	0.00000	37.40000	9.38376	13.78274
Jackson	SURFACE	Alkalinity	3	23.70000	37.40000	30.50000	6.85055
Jackson	SURFACE	Ammonia	2	0.00000	0.01720	0.00860	0.01216
Jackson	SURFACE	Calcium	3	6.27900	10.66490	8.37810	2.19897
Jackson	SURFACE	Chlorophyll a	3	0.44860	0.86780	0.72033	0.23561
Jackson	SURFACE	Fecal Coliform	3	0.00000	0.00000	0.00000	0.00000
Jackson	SURFACE	Magnesium	3	1.53500	2.33630	1.88308	0.41087
Jackson	SURFACE	Nitrate	3	0.16680	0.76750	0.38173	0.33481
Jackson	SURFACE	Nitrite	3	0.00000	0.07930	0.04627	0.04127
Jackson	SURFACE	TSI CHLOROPHYLL a	3	22.70481	29.17795	26.93163	3.66294
Jackson	SURFACE	TSI TOTAL PHOSPHORUS	3	37.35368	37.35368	37.35368	0.00000

ALL VALUES IN MG/L, EXCEPT CHLa WHICH IS IN UG/L, TURBIDITY, WHICH IS IN NTU, AND TSI WHICH IS NONDIMENSIONAL
TSI CALCULATIONS BASED ON CHLa AND TOTP VALUES GREATER THAN ZERO

GPC RESERVOIR WATER QUALITY, 2001
RESERVOIR SUMMARY STATISTICS

RESERVOIR	DEPTH	ANALYTE	N	MINIMUM	MAXIMUIM	MEAN	STD.DEV.
Jackson	SURFACE	Total Phosporus	3	0.01000	0.01000	0.01000	0.00000
Jackson	SURFACE	Turbidity	3	2.40000	4.30000	3.26667	0.96090
Juliette	SURFACE	TOTAL SAMPLES	32	0.00000	35.52981	5.97560	10.44318
Juliette	SURFACE	Alkalinity	3	26.50000	28.90000	27.93333	1.26623
Juliette	SURFACE	Ammonia	2	0.00590	0.01020	0.00805	0.00304
Juliette	SURFACE	Calcium	3	6.54800	6.63578	6.60061	0.04642
Juliette	SURFACE	Chlorophyll a	3	0.31150	1.65810	0.76927	0.76987
Juliette	SURFACE	Fecal Coliform	3	0.00000	0.00000	0.00000	0.00000
Juliette	SURFACE	Magnesium	3	2.09500	2.29812	2.17277	0.10960
Juliette	SURFACE	Nitrate	3	0.00000	0.08540	0.02847	0.04931
Juliette	SURFACE	Nitrite	3	0.00000	0.00000	0.00000	0.00000
Juliette	SURFACE	TSI CHLOROPHYLL a	3	19.12667	35.52981	24.86331	9.24626
Juliette	SURFACE	TSI TOTAL PHOSPHORUS	0	.	.	.	.
Juliette	SURFACE	Total Phosporus	3	0.00000	0.00000	0.00000	0.00000
Juliette	SURFACE	Turbidity	3	0.80000	1.70000	1.36667	0.49329
N. Highland	SURFACE	TOTAL SAMPLES	90	-0.00350	47.34886	5.06098	10.79815
N. Highland	SURFACE	Alkalinity	4	18.80000	28.80000	24.90000	4.57675
N. Highland	SURFACE	Ammonia	3	0.00000	0.08200	0.04533	0.04168
N. Highland	SURFACE	Arsenic	4	-0.00037	0.00036	0.00001	0.00030
N. Highland	SURFACE	Bioch Oxygen Demand	3	0.38000	0.98000	0.62333	0.31565
N. Highland	SURFACE	Cadmium	4	-0.00050	0.00104	0.00021	0.00069
N. Highland	SURFACE	Calcium	4	4.17200	7.12235	6.04234	1.29491
N. Highland	SURFACE	Chlorophyll a	4	0.40580	1.66960	0.92360	0.59507
N. Highland	SURFACE	Copper	4	0.00200	0.00695	0.00356	0.00231
N. Highland	SURFACE	Fecal Coliform	4	2.00000	7.00000	3.50000	2.38048
N. Highland	SURFACE	Iron	4	0.15996	0.74440	0.31494	0.28645
N. Highland	SURFACE	Lead	4	0.00150	0.00483	0.00265	0.00151
N. Highland	SURFACE	Magnesium	4	1.41500	1.77886	1.63372	0.15484
N. Highland	SURFACE	Manganese	4	0.02960	0.12490	0.06285	0.04234
N. Highland	SURFACE	Mercury	4	-0.00005	0.00011	0.00003	0.00007

ALL VALUES IN MG/L, EXCEPT CHLa WHICH IS IN UG/L, TURBIDITY, WHICH IS IN NTU, AND TSI WHICH IS NONDIMENSIONAL
TSI CALCULATIONS BASED ON CHLa AND TOTP VALUES GREATER THAN ZERO

GPC RESERVOIR WATER QUALITY, 2001
RESERVOIR SUMMARY STATISTICS

RESERVOIR	DEPTH	ANALYTE	N	MINIMUM	MAXIMUIM	MEAN	STD.DEV.
N. Highland	SURFACE	Nickel	4	-0.00350	0.00200	0.00012	0.00249
N. Highland	SURFACE	Nitrate	4	0.29610	1.12760	0.57953	0.37294
N. Highland	SURFACE	Nitrite	4	0.00000	0.05190	0.02595	0.02996
N. Highland	SURFACE	Selenium	4	-0.00016	0.00140	0.00057	0.00073
N. Highland	SURFACE	TSI CHLOROPHYLL a	4	21.72112	35.59762	28.14558	6.63934
N. Highland	SURFACE	TSI TOTAL PHOSPHORUS	4	37.35368	47.34886	39.85247	4.99759
N. Highland	SURFACE	Total Phosporus	4	0.01000	0.02000	0.01250	0.00500
N. Highland	SURFACE	Total Suspen. Solids	4	1.33000	3.25000	2.14500	0.82710
N. Highland	SURFACE	Turbidity	4	2.60000	11.00000	5.22500	3.88362
Oconee	BOTTOM	TOTAL SAMPLES	35	0.00000	53.19567	10.96961	16.05139
Oconee	BOTTOM	Alkalinity	4	16.10000	28.00000	22.70000	5.02062
Oconee	BOTTOM	Ammonia	3	0.00000	0.02710	0.01183	0.01387
Oconee	BOTTOM	Calcium	4	4.77214	4.83700	4.79071	0.03099
Oconee	BOTTOM	Magnesium	4	1.71600	1.97200	1.85725	0.10598
Oconee	BOTTOM	Nitrate	4	0.08930	0.38940	0.24850	0.12518
Oconee	BOTTOM	Nitrite	4	0.00000	0.07970	0.04700	0.03369
Oconee	BOTTOM	TSI TOTAL PHOSPHORUS	4	37.35368	53.19567	46.31177	6.57740
Oconee	BOTTOM	Total Phosporus	4	0.01000	0.03000	0.02000	0.00816
Oconee	BOTTOM	Turbidity	4	9.00000	33.00000	20.00000	11.83216
Oconee	MID		35	0.00000	53.19567	9.98503	15.40835
Oconee	MID	Alkalinity	4	17.20000	24.20000	21.32500	2.95452
Oconee	MID	Ammonia	3	0.00000	0.03980	0.02587	0.02242
Oconee	MID	Calcium	4	4.48800	4.81200	4.66457	0.14884
Oconee	MID	Magnesium	4	1.69100	1.99400	1.84320	0.12471
Oconee	MID	Nitrate	4	0.09070	0.37340	0.23508	0.11915
Oconee	MID	Nitrite	4	0.00000	0.00000	0.00000	0.00000
Oconee	MID	TSI TOTAL PHOSPHORUS	4	37.35368	53.19567	46.31177	6.57740
Oconee	MID	Total Phosporus	4	0.01000	0.03000	0.02000	0.00816
Oconee	MID	Turbidity	4	6.20000	26.00000	12.95000	8.86548
Oconee	SURFACE		139	-0.13350	152.00000	11.52277	19.77009
Oconee	SURFACE	Alkalinity	12	17.40000	33.00000	23.96667	3.80701
Oconee	SURFACE	Ammonia	9	0.00000	0.02970	0.01056	0.00999
Oconee	SURFACE	Calcium	12	4.12200	5.50600	4.93847	0.38531

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TSI CALCULATIONS BASED ON CHLa AND TOTP VALUES GREATER THAN ZERO

GPC RESERVOIR WATER QUALITY, 2001
RESERVOIR SUMMARY STATISTICS

RESERVOIR	DEPTH	ANALYTE	N	MINIMUM	MAXIMUIM	MEAN	STD.DEV.
Oconee	SURFACE	Chlorophyll a	12	-0.13350	2.09680	0.88829	0.69852
Oconee	SURFACE	Fecal Coliform	12	0.00000	152.00000	17.50000	42.72427
Oconee	SURFACE	Magnesium	12	1.57300	2.10800	1.92003	0.14084
Oconee	SURFACE	Nitrate	12	0.00000	0.36920	0.15226	0.12482
Oconee	SURFACE	Nitrite	12	0.00000	0.05220	0.00852	0.01990
Oconee	SURFACE	TSI CHLOROPHYLL a	11	11.44754	37.83269	27.72171	8.39150
Oconee	SURFACE	TSI TOTAL PHOSPHORUS	11	37.35368	57.34404	52.20093	6.14240
Oconee	SURFACE	Total Phosporus	12	0.00000	0.04000	0.02750	0.01288
Oconee	SURFACE	Turbidity	12	3.50000	19.00000	10.80000	5.43256
Oliver	SURFACE	TOTAL SAMPLES	88	-0.00480	47.34886	4.34637	9.97316
Oliver	SURFACE	Alkalinity	4	17.80000	28.50000	24.00000	4.49963
Oliver	SURFACE	Ammonia	3	0.00000	0.02240	0.01380	0.01207
Oliver	SURFACE	Arsenic	4	-0.00026	0.00067	0.00013	0.00045
Oliver	SURFACE	Bioch Oxygen Demand	3	0.63000	1.29000	0.89333	0.34962
Oliver	SURFACE	Cadmium	4	-0.00150	0.00037	-0.00066	0.00078
Oliver	SURFACE	Calcium	4	4.16200	7.26365	6.08691	1.34160
Oliver	SURFACE	Chlorophyll a	4	0.00000	1.21750	0.70398	0.57913
Oliver	SURFACE	Copper	4	-0.00090	0.00499	0.00185	0.00244
Oliver	SURFACE	Fecal Coliform	4	1.00000	5.00000	2.75000	1.70783
Oliver	SURFACE	Iron	4	0.13110	0.56720	0.26849	0.20093
Oliver	SURFACE	Lead	4	-0.00026	0.00338	0.00145	0.00152
Oliver.	SURFACE	Magnesium	4	1.40200	1.80720	1.64505	0.17195
Oliver	SURFACE	Manganese	4	0.02050	0.05919	0.04067	0.01752
Oliver	SURFACE	Mercury	4	0.00001	0.00008	0.00004	0.00003
Oliver	SURFACE	Nickel	4	-0.00480	0.00197	-0.00013	0.00315
Oliver	SURFACE	Nitrate	4	0.28190	0.95120	0.52793	0.29394
Oliver	SURFACE	Nitrite	4	0.00000	0.05250	0.02608	0.03011
Oliver	SURFACE	Selenium	4	-0.00019	0.00093	0.00047	0.00051
Oliver	SURFACE	TSI CHLOROPHYLL a	3	22.97230	32.49967	29.10133	5.31838
Oliver	SURFACE	TSI TOTAL PHOSPHORUS	3	37.35368	47.34886	40.68540	5.77072
Oliver	SURFACE	Total Phosporus	4	0.00000	0.02000	0.01000	0.00816
Oliver	SURFACE	Total Suspen. Solids	4	1.00000	3.75000	2.56250	1.16145
Oliver	SURFACE	Turbidity	4	2.40000	7.50000	3.97500	2.36837

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RESERVOIR SUMMARY STATISTICS

RESERVOIR	DEPTH	ANALYTE	N	MINIMUM	MAXIMUIM	MEAN	STD.DEV.
Rabun	SURFACE	TOTAL SAMPLES	32	0.00000	34.79154	4.71504	9.30671
Rabun	SURFACE	Alkalinity	3	7.50000	9.50000	8.56667	1.00664
Rabun	SURFACE	Ammonia	2	0.00300	0.00300	0.00300	0.00000
Rabun	SURFACE	Calcium	3	1.26900	1.47706	1.37669	0.10422
Rabun	SURFACE	Chlorophyll a	3	0.66570	1.53790	1.10773	0.43622
Rabun	SURFACE	Fecal Coliform	3	0.00000	15.00000	6.00000	7.93725
Rabun	SURFACE	Magnesium	3	0.46450	0.50680	0.48360	0.02145
Rabun	SURFACE	Nitrate	3	0.00000	0.09270	0.05847	0.05088
Rabun	SURFACE	Nitrite	3	0.00000	0.00000	0.00000	0.00000
Rabun	SURFACE	TSI CHLOROPHYLL a	3	26.57702	34.79154	31.01528	4.14708
Rabun	SURFACE	TSI TOTAL PHOSPHORUS	0	.	.	.	.
Rabun	SURFACE	Total Phosporus	3	0.00000	0.00000	0.00000	0.00000
Rabun	SURFACE	Turbidity	3	0.95000	2.40000	1.68333	0.72514
Seed	SURFACE	TOTAL SAMPLES	33	0.00000	37.35368	4.95042	9.95132
Seed	SURFACE	Alkalinity	3	7.70000	9.10000	8.43333	0.70238
Seed	SURFACE	Ammonia	2	0.00220	0.00750	0.00485	0.00375
Seed	SURFACE	Calcium	3	1.31200	1.51537	1.39146	0.10873
Seed	SURFACE	Chlorophyll a	3	0.68530	0.88110	0.76243	0.10430
Seed	SURFACE	Fecal Coliform	3	0.00000	5.00000	2.00000	2.64575
Seed	SURFACE	Magnesium	3	0.47530	0.52680	0.49383	0.02862
Seed	SURFACE	Nitrate	3	0.00000	0.00000	0.00000	0.00000
Seed	SURFACE	Nitrite	3	0.00000	0.00000	0.00000	0.00000
Seed	SURFACE	TSI CHLOROPHYLL a	3	26.86169	29.32717	27.84913	1.30390
Seed	SURFACE	TSI TOTAL PHOSPHORUS	1	37.35368	37.35368	37.35368	.
Seed	SURFACE	Total Phosporus	3	0.00000	0.01000	0.00333	0.00577
Seed	SURFACE	Turbidity	3	0.80000	1.30000	1.06667	0.25166
Sinc. Cove	SURFACE	TOTAL SAMPLES	139	-0.06760	70.55695	13.76922	18.65741
Sinc. Cove	SURFACE	Alkalinity	12	15.70000	27.50000	24.10000	3.12788
Sinc. Cove	SURFACE	Ammonia	8	0.00000	0.01990	0.00836	0.00905

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Sinc. Cove	SURFACE	Calcium	12	0.00750	5.38166	4.37817	1.41197
Sinc. Cove	SURFACE	Chlorophyll a	12	-0.06760	11.57450	2.97202	3.45656
Sinc. Cove	SURFACE	Fecal Coliform	12	0.00000	49.00000	18.25000	16.64673
Sinc. Cove	SURFACE	Magnesium	12	0.02200	2.24072	1.82422	0.58256
Sinc. Cove	SURFACE	Nitrate	12	0.00000	0.11330	0.04536	0.04875
Sinc. Cove	SURFACE	Nitrite	12	0.00000	0.07860	0.01130	0.02679
Sinc. Cove	SURFACE	TSI CHLOROPHYLL a	11	26.83589	54.59257	37.67039	9.49159
Sinc. Cove	SURFACE	TSI TOTAL PHOSPHORUS	12	47.34886	70.55695	56.85816	6.22361
Sinc. Cove	SURFACE	Total Phosporus	12	0.02000	0.10000	0.04250	0.02179
Sinc. Cove	SURFACE	Turbidity	12	5.90000	34.00000	16.47500	8.24347
Sinclair	SURFACE	TOTAL SAMPLES	140	0.00000	63.19085	12.40598	17.80458
Sinclair	SURFACE	Alkalinity	12	16.40000	31.80000	22.80833	3.85710
Sinclair	SURFACE	Ammonia	8	0.00000	0.09020	0.02110	0.03102
Sinclair	SURFACE	Calcium	12	3.42800	5.55846	4.45657	0.64890
Sinclair	SURFACE	Chlorophyll a	12	0.50460	23.11510	3.97579	6.31414
Sinclair	SURFACE	Fecal Coliform	12	0.00000	31.00000	6.08333	10.46603
Sinclair	SURFACE	Magnesium	12	1.46500	2.28334	1.84350	0.22507
Sinclair	SURFACE	Nitrate	12	0.00000	0.18270	0.08343	0.07799
Sinclair	SURFACE	Nitrite	12	0.00000	0.07730	0.01142	0.02693
Sinclair	SURFACE	TSI CHLOROPHYLL a	12	23.85884	61.37819	37.57910	10.66832
Sinclair	SURFACE	TSI TOTAL PHOSPHORUS	12	37.35368	63.19085	53.03920	7.53481
Sinclair	SURFACE	Total Phosporus	12	0.01000	0.06000	0.03333	0.01614
Sinclair	SURFACE	Turbidity	12	4.90000	40.00000	14.80833	11.40394
Tallulah	SURFACE	TOTAL SAMPLES	33	0.00000	71.93133	7.34444	15.94262
Tallulah	SURFACE	Alkalinity	3	7.90000	9.40000	8.46667	0.81445
Tallulah	SURFACE	Ammonia	2	0.00350	0.00490	0.00420	0.00099
Tallulah	SURFACE	Calcium	3	1.23700	1.42287	1.34196	0.09524
Tallulah	SURFACE	Chlorophyll a	3	0.36050	1.93660	1.10270	0.79204
Tallulah	SURFACE	Fecal Coliform	3	0.00000	42.00000	14.00000	24.24871
Tallulah	SURFACE	Magnesium	3	0.44980	0.50010	0.47147	0.02586

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RESERVOIR	DEPTH	ANALYTE	N	MINIMUM	MAXIMUIM	MEAN	STD.DEV.
Tallulah	SURFACE	Nitrate	3	0.00000	0.09550	0.05980	0.05211
Tallulah	SURFACE	Nitrite	3	0.00000	0.00000	0.00000	0.00000
Tallulah	SURFACE	TSI CHLOROPHYLL a	3	20.55988	37.05298	29.42973	8.31691
Tallulah	SURFACE	TSI TOTAL PHOSPHORUS	1	71.93133	71.93133	71.93133	.
Tallulah	SURFACE	Total Phosporus	3	0.00000	0.11000	0.03667	0.06351
Tallulah	SURFACE	Turbidity	3	1.40000	2.20000	1.90000	0.43589
Tugalo	SURFACE	TOTAL SAMPLES	34	0.00000	76.00000	9.15633	18.63702
Tugalo	SURFACE	Alkalinity	3	7.80000	9.10000	8.30000	0.70000
Tugalo	SURFACE	Ammonia	2	0.00250	0.00420	0.00335	0.00120
Tugalo	SURFACE	Calcium	3	1.05900	1.34835	1.19745	0.14508
Tugalo	SURFACE	Chlorophyll a	3	1.24960	1.28520	1.26857	0.01791
Tugalo	SURFACE	Fecal Coliform	3	0.00000	76.00000	25.33333	43.87862
Tugalo	SURFACE	Magnesium	3	0.41310	0.49162	0.44874	0.03976
Tugalo	SURFACE	Nitrate	3	0.00000	0.08240	0.02747	0.04757
Tugalo	SURFACE	Nitrite	3	0.00000	0.00000	0.00000	0.00000
Tugalo	SURFACE	TSI CHLOROPHYLL a	3	32.75497	33.03055	32.90210	0.13874
Tugalo	SURFACE	TSI TOTAL PHOSPHORUS	2	37.35368	60.56177	48.95772	16.41060
Tugalo	SURFACE	Total Phosporus	3	0.00000	0.05000	0.02000	0.02646
Tugalo	SURFACE	Turbidity	3	1.20000	2.20000	1.63333	0.51316
Worth	SURFACE	TOTAL SAMPLES	34	0.00000	47.34886	11.94335	15.97753
Worth	SURFACE	Alkalinity	2	27.30000	28.00000	27.65000	0.49497
Worth	SURFACE	Ammonia	2	0.02390	0.04160	0.03275	0.01252
Worth	SURFACE	Calcium	3	7.13600	7.96672	7.44765	0.45254
Worth	SURFACE	Chlorophyll a	3	0.25990	3.36780	1.82600	1.55409
Worth	SURFACE	Fecal Coliform	3	7.00000	29.00000	17.00000	11.13553
Worth	SURFACE	Magnesium	3	1.23322	1.40900	1.33729	0.09225
Worth	SURFACE	Nitrate	3	0.18870	0.29230	0.24353	0.05207
Worth	SURFACE	Nitrite	3	0.00000	0.05070	0.03377	0.02924
Worth	SURFACE	TSI CHLOROPHYLL a	3	17.34999	42.48128	32.14568	13.14590
Worth	SURFACE	TSI TOTAL PHOSPHORUS	3	47.34886	47.34886	47.34886	0.00000

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RESERVOIR	DEPTH	ANALYTE	N	MINIMUM	MAXIMUIM	MEAN	STD.DEV.
Worth	SURFACE	Total Phosporus	3	0.02000	0.02000	0.02000	0.00000
Worth	SURFACE	Turbidity	3	9.00000	10.00000	9.50000	0.50000
Yonah	SURFACE	TOTAL SAMPLES	33	0.00000	37.35368	5.52830	10.81887
Yonah	SURFACE	Alkalinity	3	7.60000	8.60000	7.96667	0.55076
Yonah	SURFACE	Ammonia	2	0.00260	0.00490	0.00375	0.00163
Yonah	SURFACE	Calcium	3	1.10800	1.20450	1.16183	0.04921
Yonah	SURFACE	Chlorophyll a	3	0.67640	1.55040	1.14277	0.43995
Yonah	SURFACE	Fecal Coliform	3	0.00000	13.00000	4.66667	7.23418
Yonah	SURFACE	Magnesium	3	0.42310	0.46722	0.44394	0.02216
Yonah	SURFACE	Nitrate	3	0.00000	0.09270	0.03090	0.05352
Yonah	SURFACE	Nitrite	3	0.00000	0.00000	0.00000	0.00000
Yonah	SURFACE	TSI CHLOROPHYLL a	3	26.73345	34.87096	31.32476	4.16821
Yonah	SURFACE	TSI TOTAL PHOSPHORUS	1	37.35368	37.35368	37.35368	.
Yonah	SURFACE	Total Phosporus	3	0.00000	0.01000	0.00333	0.00577
Yonah	SURFACE	Turbidity	3	0.85000	2.90000	1.61667	1.11841

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TSI CALCULATIONS BASED ON CHLa AND TOTP VALUES GREATER THAN ZERO

"Wiseman, Carol"
<Carol.Wiseman@weyerhaeuser.com>

02/22/2002 12:35 PM

To: Karrie-Jo Shell/R4/USEPA/US@EPA
cc: "Strandburg, Gary" <gary.strandburg@weyerhaeuser.com>, "Parker, Willard (Flint River)" <willard.parker@weyerhaeuser.com>
Subject: RE: specific conductivity for the Flint River mill

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SUMMARY OF CHANGES TO WATER QUALITY STANDARDS
January 31, 2002

Section of Document	Action	Reason
SECTION I. GENERAL CONDITIONS		
I.2	- replaced "sanitary" with "environmental" - inserted "and scientific" - inserted "seasons of the year" - replaced "appraisal of such actual or potential damage to water use as may exist" with "assessment of water quality" - inserted "methodology specified in 40 CFR 136"	clarification of meaning
I.4	inserted "Natural Conditions" language	to allow us to make judgement calls when assessing data collected at sites with unique natural water quality conditions
I.6	removed dissolved oxygen standard for open ocean waters	Section II.8 applies to all waters – not necessary to define standards for ocean waters separate from other state waters.
I.8	prohibited mixing zones in "habitats of threatened/endangered species"	Recommended by the U.S. Fish and Wildlife Service that mixing zones be prohibited in the habitats of threatened/endangered species
SECTION II. MINIMUM CONDITIONS APPLICABLE TO ALL WATERS		
II.3	- inserted "or dissolved" and inserted "sediment, turbidity" - inserted "Except as prohibited in Section I, Paragraph 8 above" - inserted clause added to allow turbidity exception	- to reinforce the applicability of the "free froms" to violators of stormwater regulations - to clarify that the turbidity mixing zone in I.8 is not allowed in ecologically sensitive areas - for the environmentally beneficial use of dredge materials to rebuild wetlands
II.6	clarified that waters of higher uses should also support aquatic life by meeting the Fish and Wildlife criteria	a similar statement was in Section III.3 – Recreation. "The waters shall also be suitable for use for which waters of lower quality will be satisfactory." This was reworded and moved from Section III.3 to Section II.6.
II.7	[1]fecal coliform general conditions added	- to redefine secondary contact - to recognize wet weather influences
II.8	- dissolved oxygen language was condensed - sampling point locations reworded	- to eliminate repetition - to better define where DO samples should be taken in ambient waters. Previous wording was confusing.

Section of Document	Action	Reason
II.9	[ii]pH range and language revised	- to be more consistent with neighboring states - to clarify the intent of a one (1) pH unit change from background - to recognize naturally occurring low pH conditions in blackwater streams and acidic soils - to allow case-by-case variations
II.10	- coastal/estuarine temperature maximum defined as 90 F - inserted language applicable to instances when natural background temperatures exceed the maximum 90°F	- 90°F maximum has previously meant to apply to coastal/estuarine waters, however, it did not clearly state so - to clarify that no increases are allowed by thermal dischargers when natural background temperatures exceed 90°F
II.11.C	added statement regarding ammonia toxicity	to reference EPA criteria documents when evaluating ammonia toxicity
II.11.G(2)(a) II.11.G(2)(b)	added "establishing TMDLs	to specify that EPA's published water quality criteria recommendations should be considered in TMDL calculations when the state has no adopted numeric criteria
Table 1	- moved Appendix A from the end of the document to the toxics section and renamed it "Table 1". [iii]toxic criteria changes/updates [iv]Arsenic criteria – Human Health – recalculated	- makes better sense to have the numeric toxics in the narrative toxics section of the document rather than at the end as an Appendix. - EPA requirement as part of all states' triennial reviews - both values were recalculated assuming a different bioconcentration factor and assuming an inorganic fraction of arsenic in fish tissue
SECTION III. SPECIFIC WATER QUALITY CRITERIA		
III.1	[i]redefined "secondary contact" and moved the definition to Section II.7	to exclude full body contact activities.

Section of Document	Action	Reason
III.1.A	- removed "when water contact recreation activities may be expected to occur" - established a minimum number of samples and an averaging period - replaced 2000 with 1000. - replaced 10% with 20% and 4000 with 2000.	- to provide consistency with the revised definition of "secondary contact" - needed clarification in order to properly assess data to provide consistency with neighboring states
III.1.F III.1.G	- removed Phenolic Compounds criteria and removed Arsenic III, Cadmium, Chromium VI, Cyanide, Mercury, Selenium, and Silver - updated Barium, Fluoride, and Lead	- not necessary to list them under PWS because the criteria protective of human health for water and organisms are already contained in Table 1. - to reflect EPA's latest drinking water MCLs.
III.2	removed bacteria language under Shellfish Harvesting leaving a reference to the NSSP's Manual of Operations, Sanitation of Shellfish Growing Areas	to eliminate the possibility of inconsistencies between the classification methodology and procedures used by the Department of Marine Resources to assess shellfish harvesting beds and the water quality standards
III.3	Reworded the statement "The waters shall also be suitable for use for which waters of lower quality will be satisfactory" and moved to Section II.6	clarification
III.3.A	- established a minimum number of samples and an averaging period - removed "nor shall more than 10% of the samples examined during any month exceed 400/100ml"	- needed clarification in order to properly assess data - to remove the effective single sample maximum and apply the "steady state concept" which is referenced in the Bacteria section of the 1986 Gold Book.
III.4	same change as in III.1	same as III.1
III.4.A	- removed primary contact criteria -redefined bacteria criteria necessary to protect for secondary contact - established a minimum number of samples and an averaging period	-inappropriate application – see Fact Sheet -to be consistent with other states -same as III.1.A.
III.4.D	removed Phenolic Compounds criteria	same as III.1.F and G
SECTION IV. DESIGNATED USES IN STATE WATERS		
IV. Coastal Basin	- added Back Bay of Biloxi, Big Lake, and Old Fort Bayou as Recreation waters	- to protect those waters for primary contact recreation

Section of Document	Action	Reason
	- Combined Jourdan River segments and corrected "Dead Tiger" to "Bacon Bayou"	- correction
IV. Pascagoula River Basin	- reduced the extent of dissolved oxygen variance for Tallahala Creek - Relocated Simpson County Legion Lake to Pearl River Basin from Pascagoula Basin	- to move the downstream point of the variance from Sholars (River Mile 27.7) to Tallahoma Creek, thereby reducing the size of the variance based on DO studies as part of the 1999 TMDL. - correction
IV. Pearl River Basin	- Added Shadow Lake in Scott County - Relocated Simpson County Legion Lake to Pearl River Basin from Pascagoula Basin	- known recreational area - correction
Appendix A	moved to toxics section and renamed it "Table 1"	See Section II, Table 1

[i] There is a separate fact sheet titled "Bacteria" that describes the changes in more detail.
[ii] There is a separate fact sheet titled "pH" that describes the changes in more detail.
[iii] There is a separate spreadsheet in which the criteria for all toxic parameters are calculated.
[iv] There is a separate fact sheet titled "Arsenic" in which the calculations are explained.

file

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
100 ALABAMA STREET, S.W.
ATLANTA, GEORGIA 30303-3104

GA0035564

APR 04 1997

REF: 4WM-SWPFB

Mr. Alan Hallum, Chief
Water Protection Branch
Georgia Department of Natural
Resources
Floyd Towers East - Room 1058
205 Butler Street, S.E.
Atlanta, GA 30334

RE: NPDES Overview

Dear Mr. Hallum:

In accordance with the EPA/GA MOA we have completed review of the following final permit(s) and have no objections to the proposed permit conditions.

NPDES No.	Facility
GA0000850	GALEY AND LORD (modif.)
GA0020079	CITY OF THOMASTON - BELL CREEK WPCP
GA0020338	CITY OF HAWKINSVILLE - SOUTH WPCP (modif.)
GA0023973	GWINNETT CO - NO BUSINESS CREEK WPCP (modif.)
GA0024678	CITY OF BAINBRIDGE WPCP (modif.)
GA0031046	CITY OF FORT VALLEY WPCP
GA0035564	GEORGIA POWER COMPANY - PLANT SCHERER
GA0046027	CITY OF HAWKINSVILLE - NORTH WPCP (modif.)

If you have any questions, please call Connie Kagey at (404) 562-9300.

Sincerely,

Douglas F. Mundrick

Douglas F. Mundrick, P.E., Chief
Surface Water Permits and
Facilities Branch
Water Management Division

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

Georgia Department of Natural Resources
205 Butler Street, S.E., East Floyd Tower, Atlanta, Georgia 30334
Lonice C. Barrett, Commissioner
Harold F. Reheis, Director
David Word, Assistant Director
Environmental Protection Division
404/656-4713

February 25, 1997

Mr. C. M. Hobson
Manager, Environmental Affairs
Georgia Power Company
333 Piedmont Avenue
Atlanta, Georgia 30308

RE: NPDES Permit No. GA0035564
Georgia Power Company, Plant Scherer

Dear Mr. Hobson:

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,

Harold F. Reheis
Director

HFR:kh
Attachment

cc: Mr. Douglas Mundrick (w/attachment)
U.S. Environmental Protection Agency

cc: Mr. Howard Shelnutt
Georgia Power Company

PERMIT NO. GA0035564

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
333 Piedmont Avenue
Atlanta, Georgia 30308

is authorized to discharge from a facility located at

Plant Scherer
10986 Highway 87
Juliette, Monroe County, Georgia 31046

to receiving waters

Berry Creek, Lake Juliette (Rum Creek) and the Ocmulgee River

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 February 25, 1997.

This permit and the authorization to discharge shall expire at midnight, January 31, 2002.

Signed this 25th day of February 1997.

Director,
Environmental Protection Division

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning effective date and lasting through January 31, 2002, the permittee is authorized to discharge from outfall(s) serial number(s) 01 - Final Plant Discharge: Combined discharge of outfalls 01A, 01B, 01C, 01D, and 01E to the Ocmulgee River.

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m'Day(MGD)	-	-	-	-	-	-	-
Total Residual Chlorine (TRC)		-	-	-	1/Day*	Grab	Final Discharge

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per month by a grab sample of the final discharge to the Ocmulgee River.

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

* Monitoring of TRC is required only during continuous service water chlorination for controlling asiatic clams.

2. During the period beginning effective date and lasting through January 31, 2002, the permittee is authorized to discharge from outfall(s) serial number(s) 01A - Cooling Tower Blowdown for Units 1, 2, 3 and 4.

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

Effluent Characteristic	Discharge Limitations Concentration Based (mg/l)			Monitoring Requirements		
	Daily Max.	Avg.	Inst. Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m³Day (MGD)	-	-	-	-	-	-
Free Available Chlorine (FAC)	-	0.2	0.5	1/Week	Multiple Grabs	Blowdown Line
Total Residual Chlorine (TRC)	-	-	-	1/Week	Multiple Grabs	Blowdown Line
TRC Time (minutes/day/unit)	120	-	-	1/Week	Multiple Grabs	Blowdown Line
Total Residual Chlorine (TRC)	-	-	-	1/Week	Multiple Grabs	Service Water
Total Chromium	0.2	-	-	1/Year	Grab	Blowdown Line
Total Zinc	1.0	-	-	1/Year	Grab	Blowdown Line

Multiple grab samples are to be collected on 15 minute intervals during periods of FAC and TRC discharges attributable to cooling tower/condenser chlorination. Intervals are to be once per day during FAC and TRC discharges attributable to continuous service water chlorination. Samples are to be taken before each individual cooling tower blowdown combines with waste streams from other sources.

All numerical discharge limitations and monitoring requirements apply to the individual cooling tower blowdown from each generating unit. The limitations of 0.2/0.5 mg/l of FAC apply to FAC discharge attributable to cooling tower/condenser chlorination (i.e. effluent concentration of FAC above that due to continuous service water system chlorination). Time of discharge of TRC attributable to cooling tower/condenser chlorination is limited to 2 hours/day/unit. Simultaneous discharge of TRC attributable to cooling tower/condenser chlorination is prohibited.

3. During the period beginning effective date and lasting through January 31, 2002, the permittee is authorized to discharge from outfall(s) serial number(s) 01B - Ash Transport Bleedoff (includes 03E Wastewater Basins Units 1, 2, 3 and 4, Low Volume Waste).

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location*
Flow-m Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Bleedoff
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	Bleedoff

* Samples are to be taken at the ash transport bleedoff line prior to combination with any other wastewater stream.

4. During the period beginning effective date and lasting through January 31, 2002, the permittee is authorized to discharge from outfall(s) serial number(s) 01C and 01D - Units 3 and 4 Cooling Tower Overflows/Basin Drains.

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

Effluent Characteristic	Discharge Limitations Units (Specify) (mg/l)				Monitoring Requirements		
	Avg.	Inst. Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m³Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil & Grease (O & G)	-	-	15	20	2/Month	Grab	Overflow
Free Available Chlorine (FAC)	0.2	0.5	-	-	1/Week	Multiple Grabs	Overflow
Total Residual Chlorine (TRC)	-	-	-	-	1/Week	Multiple Grabs	Overflow
TRC Time (minutes/day/unit)	-	-	-	120	1/Week	Multiple Grabs	Overflow
Total Chromium	-	-	-	0.2	1/Year	Grab	Overflow
Total Zinc	-	-	-	1.0	1/Year	Grab	Overflow

TSS and O & G are required for basin drain discharges. FAC, TRC, TRC Time, chromium, and zinc are required for cooling tower overflow discharges.

Multiple grab samples are to be collected on 15 minute intervals during periods of FAC and TRC discharges attributable to cooling tower/condenser chlorination. Intervals are to be once per day during FAC and TRC discharges attributable to continuous service water chlorination. Samples are to be taken before each individual cooling tower overflow combines with waste streams from other sources.

All numerical discharge limitations and monitoring requirements apply to the individual cooling tower overflow from each generating unit. The limitations of 0.2/0.5 mg/l of FAC apply to FAC discharge attributable to cooling tower/condenser chlorination (i.e. effluent concentration of FAC above that due to continuous service water system chlorination). Time of discharge of TRC attributable to cooling tower/condenser chlorination is limited to 2 hours/day/unit. Simultaneous discharge of TRC attributable to cooling tower/condenser chlorination is prohibited.

5. During the period beginning effective date and lasting through January 31, 2002, the permittee is authorized to discharge from outfall(s) serial number(s) 02 - Detention Pond (I Pond) and 02A - I Pond Bottom Drain; Discharges to Berry Creek (includes 02B, Fire Training Runoff and 02C, NPDES Basin Emergency Overflow).

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m'Day (MGD)	-	-	-	-	-	-	-
Total Residual Chlorine (TRC)(1)		-	-	-	1/Day	Grab	Final Discharge(3)
Selenium (2)	-	-	-	0.005	1/Month	Grab	Final Discharge(3)

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per month by a grab sample at the final discharge to Berry Creek or at the bottom drain when discharging.

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

(1) Monitoring of TRC is required only when continuous service water chlorination for controlling asiatic clams coincides with discharge from the NPDES Basin Emergency Overflow (02C) to I Pond.

(2) Monitoring for selenium and pH is required only when the NPDES Basin Emergency Overflow (02C) is discharging to I pond.

(3) Final discharge or bottom drain when discharging.

6. During the period beginning effective date and lasting through January 31, 2002, the permittee is authorized to discharge from outfall(s) serial number(s) 04 - Service Water Final Discharge to Lake Juliette.

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m'Day (MGD)	-	-	-	-	-	-	-
Temperature	-	-	-	-	1/Week	Grab	*
Total Residual Chlorine (TRC)		-	-	-	1/Week	Grab	Final Discharge

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

* Temperature will be monitored and reported for the plant intake and the final discharge. The difference ("ΔT") between the intake and discharge temperature shall be calculated and entered on the monitoring report.

7. During the period beginning effective date and lasting through January 31, 2002, the permittee is authorized to discharge from outfall(s) serial number(s) 05 and 06 - Units 1 and 2 Cooling Tower Overflows/Basin Drains to Lake Juliette.

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

Effluent Characteristic	Discharge Limitations Units (Specify) (mg/l) Avg.	Inst. Max.	Daily Avg.	Daily Max.	Monitoring Requirements Measurement Frequency	Sample Type	Sample Location
Flow-m³Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil & Grease (O & G)	-	-	15	20	2/Month	Grab	Overflow
Free Available Chlorine (FAC)	0.2	0.5	-	-	1/Week	Multiple Grabs	Overflow
Total Residual Chlorine (TRC)	-	-	-	-	1/Week	Multiple Grabs	Overflow
TRC Time (minutes/day/unit)	-	-	-	120	1/Week	Multiple Grabs	Overflow
Total Chromium	-	-	-	0.2	1/Year	Grab	Overflow
Total Zinc	-	-	-	1.0	1/Year	Grab	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 sampling. There shall be no discharge of floating solids or visible foam in other than trace amounts.

TSS, O & G and pH are required for basin drain discharges. FAC, TRC, TRC Time, chromium, zinc, and pH are required for cooling tower overflow discharges.

Multiple grab samples are to be collected on 15 minute intervals during periods of FAC and TRC discharges attributable to cooling tower/condenser chlorination. Intervals are to be once per day during FAC and TRC discharges attributable to continuous service water chlorination. Samples are to be taken before each individual cooling tower overflow combines with waste streams from other sources.

All numerical discharge limitations and monitoring requirements apply to the individual cooling tower overflow from each generating unit. The limitations of 0.2/0.5 mg/l of FAC apply to FAC discharge attributable to cooling tower/condenser chlorination (i.e. effluent concentration of FAC above that due to continuous service water system chlorination). Time of discharge of TRC attributable to cooling tower/condenser chlorination is limited to 2 hours/day/unit. Simultaneous discharge of TRC attributable to cooling tower/condenser chlorination is prohibited.

8. During the period beginning effective date and lasting through January 31, 2002, the permittee is authorized to discharge from outfall(s) serial number(s) 07 - Settling Pond Emergency Overflow to Lake Juliette (Ash Transport Water).

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency*	Sample Type	Sample Location
Flow-m'Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	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 sampling.*

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

* Monitoring for TSS, O&G, and pH is required only when an overflow is occurring.

10. During the period beginning effective date and lasting through January 31, 2002, the permittee is authorized to discharge from outfall(s) serial number(s) 13 and 14 - Emergency Overflows to Lake Juliette (Low Volume Wastes) from Units 1 and 2 Wastewater Basin and Units 3 and 4 Wastewater Basin.

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency*	Sample Type	Sample Location
Flow-m'Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	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 sampling.*

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

* Monitoring for TSS, O&G, and pH is required only when an overflow 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:

Effluent limitations are effective upon issuance of this permit.

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
Industrial Wastewater Unit
4244 International Parkway
Suite 110
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 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.

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.

B. 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) 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 (O3I, 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 (03I, 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 2/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. Neither free available chlorine (FAC) nor total residual chlorine (TRC) 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 Director that the units in a particular location cannot operate at or below this level of chlorination. The permittee has demonstrated the need to continuously chlorinate the service water system to control asiatic clams. The present intent is to chlorinate the service water periodically from April through October, five days per month for 24 hours per day at an initial level of 1.0 mg/l FAC. Other months, longer durations, and lower FAC levels may be used. This chlorination practice will result occasionally in the discharge of FAC or TRC from each cooling tower simultaneously and for more than 2 hours per day. The permittee must reduce the chlorine discharge if possible and has performed a study to determine the minimum practicable chlorine levels, frequencies and duration of

continuous chlorination for the service water system to adequately control asiatic clams.

5. In accordance with 40 CFR 423.11(k), the free available chlorine (FAC) average means the average over any individual chlorine release period of 2 hours per day per unit. The FAC 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 FAC and TRC discharges. The results shall be reported in a suitably concise form.

6. In accordance with 40 CFR 423.13(d)(3), the permittee shall certify every two years in the flow characterization study that no priority pollutant other than chromium or zinc is above detectable limits in outfall 01A, 01C, 01D, 05 and 06 (cooling tower blowdowns or overflows). This certification may be based on manufacturers' certifications or engineering calculations.

7. 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.

8. 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.

9. Once every two years, the permittee shall submit to the Director flow monitoring and characterization information regarding the various waste streams.

10. All sewage treatment plants (STP) must be properly operated and maintained. This applies to 03A No. 2 STP, 03B No. 4 STP, and 03C, No. 1 STP.

11. Summary of flow characterization study requirements from preceding pages.

    a. Metal cleaning waste treatment and disposal procedures.

    b. Flow determination of various waste streams.

    c. Cooling tower blowdown priority pollutant certification per 40 CFR 423.13(d)(3).

12. The provisions of 40 CFR 122.41(6)(iii) regarding waiver of the 5 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. 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.

15. 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.

16. The best management practices plan for "Macrofouling and Biofouling Control" dated June 10, 1995 is incorporated in this permit. The plan may be modified upon written approval by the Division.

17. 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.

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. 14. above.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
100 ALABAMA STREET, S.W.
ATLANTA, GEORGIA 30303-3104

JAN 28 1997

REF: 4WM-SWPFB

Mr. Alan Hallum, Chief
Water Protection Branch
Georgia Department of Natural Resources
Floyd Towers East - Room 1058
205 Butler Street, S.E.
Atlanta, GA 30334

SUBJECT: NPDES Overview

Dear Mr. Hallum:

In accordance with the EPA/EPD MOA, we have completed review of the following draft permit(s) and have no objections to the proposed permit conditions.

NPDES No.	Facility
GA0035564	Georgia Power Company/Plant Sherer

We request we be afforded an additional review opportunity only if significant changes are made to the permit(s) prior to issuance, or if significant objections to the permit(s) are received. Otherwise, please send us one copy of the final permit(s) when issued.

If you have any questions, please call Connie Kagey at (404) 562-9300.

Sincerely,

Douglas F. Mundrick

Douglas F. Mundrick, P.E., Chief
Surface Water Permits and
Facilities Branch
Water Management Division

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

Georgia Department of Natural Resources
GEORGIA ENVIRONMENTAL PROTECTION DIVISION
Permitting, Compliance and Enforcement Program
4244 International Parkway, Suite 110
Atlanta, Georgia 30354
404/362-2680
FAX 404/362-2691

January 8, 1997

Mr. C. M. Hobson
Manager, Environmental Affairs
Georgia Power Company
333 Piedmont Avenue
Atlanta, GA 30308

Re: NPDES Permit No. GA0035564
Plant Scherer

Dear Mr. Hobson:

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 Monroe County Courthouse. Within 10 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 Mr. Tom Hopkins of my staff at 404-362-2680.

Sincerely,

Michael S. Creason

Michael S. Creason, P.E.
Unit Coordinator
Industrial Wastewater Unit

MSC:thh
Attachment

cc: Mr. Douglas Mundrick (w/attachments)
U. S. Environmental Protection Agency

January 8, 1997

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, 333 Piedmont Avenue, Atlanta, Georgia 30308, NPDES Permit No. GA 0035564 for its Plant Scherer facility located at 10986 Highway 87 in Juliette, Monroe County. Five existing discharges enter Rum Creek, Berry Creek, and the Ocmulgee River in the Upper Ocmulgee 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 25¢ per page will be assessed. The permit application, draft permit, comments received, and other information are available for review at 4244 International Parkway, Suite 110, Atlanta, Georgia, between the hours of 9:00 a.m. and 4:00 p.m., Monday through Friday.

Georgia Power Company
333 Piedmont Avenue
Atlanta, Georgia 30308
Telephone 404 526-6526

Mailing Address:
Post Office Box 4545
Atlanta, Georgia 30302

Georgia Power
the southern electric system

Environmental Affairs

August 23, 1996

PLANT SCHERER
NPDES Permit No. GA0035564
Application for Permit Renewal

NAME:
CORRESPONDENCE:
PERMIT:
PRETREATMENT
STATE:
LOCAL:
PERMIT:
OPERATING:

RECEIVED
AUG 2 3 1996
GEORGIA EPD
WATER PROTECTION BRANCH
COMPLIANCE AND ENFORCEMENT PROGRAM

Mr. Michael Creason
Industrial Wastewater Unit
Permitting, Compliance and Enforcement Program
Georgia Environmental Protection Division
4244 International Parkway, Suite 110
Atlanta, GA 30354

Dear Mr. Creason:

Attached is the NPDES permit renewal application package for the Georgia Power Company Plant Scherer facility located in Juliette, 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 map showing the locations of process wastewater discharges and commingled stormwater discharges.

3. An evaluation demonstrating that the Plant Scherer ash treatment systems have adequate storage volume to meet EPA's co-treatment guidelines through the next permit term.

4. October 16, 1995, letter from EPD approving the Plant Scherer Best Management Practices Plan for macrofouling and biofouling control.

We request that the Division modify the provisions of Part III. B. to include the following language. The requested modifications are consistent with provisions in other Georgia Power Company NPDES permits.

A. "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."

Georgia Power

B. "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."

C. "The provisions of 40 CFR 122.41(6)(iii) regarding waiver of the 5 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."

D. "The best management practices plan for macrofouling and biofouling control, dated June 10, 1995, is incorporated in the permit. The plan may be modified upon approval by the Division."

Georgia Power Company recognizes the workload currently placed on the Industrial Wastewater Unit and the importance of communication with the Division early in the permitting process. Therefore, we are prepared to discuss stormwater and process water outfalls, flows, and other permit issues with the Division at your convenience.

If you have questions, comments, or require additional information, please contact Howard Shelnutt at (404) 526-7058.

Sincerely,

M. E. Wilder

M. E. Wilder
Environmental Project Manager

HLS/attachments

xc: Tom Hopkins - EPD Industrial Wastewater Unit

700775

Georgia Power Company
Bin 10170
333 Piedmont Avenue, NE
Atlanta, Georgia 30308-3374
Telephone 404 526-6526

Chris M. Hobson
Manager
Environmental Affairs

January 3, 1997

Georgia Power
the southern electric system

PLANT SCHERER
NPDES Permit No. GA0035564
Application for Permit Renewal - Page Revisions

Mr. Michael Creason
Industrial Wastewater Unit
Permitting, Compliance and Enforcement Program
Georgia Environmental Protection Division
4244 International Parkway, Suite 110
Atlanta, GA 30354

Dear Mr. Creason:

Attached are minor page revisions to the August 23, 1996, NPDES permit renewal application package for the Plant Scherer facility located in Juliette, Georgia. The page revisions are submitted pursuant to discussions with Mr. Tom Hopkins, of your staff, and include the following:

1. An updated line drawing showing the water flow through the facility - added Outfall 02B - Fire Training Runoff.

2. Revised Form 2C to include statements that the pollutants Bis(Chloromethyl) Ether, Dichlorodifluoromethane, Trichlorofluoromethane, and radioactivity are believed absent from Outfalls 01 and 04. Based on an additional sample collected after submittal of the permit application, a long term average value for Zinc has been included for Outfall 04.

If you have questions, comments, or require additional information, please contact Howard Shelnutt at (404) 526-7058.

Sincerely,

C. M. Hobson

HLS/attachments
xc: Tom Hopkins - EPD Industrial Wastewater Unit

Please print or type in the unshaded areas only
(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

EPA

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			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 in the appropriate fill—in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists 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
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)		X	
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)		X	
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		X
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)		X	
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)		X	
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)		X	
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)		X	
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)		X	
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)		X	
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)		X	

III. NAME OF FACILITY

C 1 SKIP PLANT SCHERER

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
C 2 HOBSON, C. M. MGR., ENV. AFFAIRS	404 526 7778

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

C 3 333 PIEDMONT AVENUE

B. CITY OR TOWN	C. STATE	D. ZIP CODE
C 4 ATLANTA	GA	30308

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

C 5 10986 HWY 87

B. COUNTY NAME

MONROE

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
C 6 JULIETTE	GA	31046	

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

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

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

VIII. OPERATOR INFORMATION

A. NAME: 8 GEORGIA POWER COMPANY

B. Is the name listed i Item VIII-A also th owner?* [X] 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.): A 404 526 6526

E. STREET OR P.O. BOX: 333 PIEDMONT AVENUE

F. CITY OR TOWN: B ATLANTA

G. STATE: GA

H. ZIP CODE: 30308

IX. INDIAN LAND

Is the facility located on Indian lands? [ ] YES [X] NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water): 9 N GA0035564	D. PSD (Air Emissions from Proposed Sources): 9 P N/A
B. UIC (Underground Injection of Fluids): 9 U N/A	E. OTHER (specify): 9 N/A (specify)
C. RCRA (Hazardous Wastes): 9 R N/A	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 bounderies. 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 the combustion of Fossil Fuels.

* Plant Scherer is jointly owned by: Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, Florida Power & Light, Jacksonville Electric Authority, Gulf Power Company, and City of Dalton.

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
R. H. Haubein Senior V. P. Fossil & Hydro Power	RH Haubein	8/23/96

COMMENTS FOR OFFICIAL USE ONLY

C

Please print or type in the unshaded areas only.

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

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.	
01	33	04	51	83	46	36	Ocmulgee River via pipeline
02	33	04	18	83	47	45	Ocmulgee River via Berry Creek
04,05,06, 07,08,09, 10,12,13, 14	33	03	14	83	48	22	Lake Juliette - Service Water Storage
11	33	03	51	83	44	21	Ocmulgee 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	Final Plant Discharge Stormwater	14,052 gpm	25,000 gpm (maximum)	2F **	4A
01A	Cooling Tower Blowdown Units 1-4	7,470 gpm	33,000 gpm (maximum)	2F **	4A
01B	Ash Transport Bleedoff	6,582 gpm	10,600 gpm (maximum) Planned installation of a manual by-pass valve will increase the maximum discharge to 17,624 gpm		4A
01C	Unit 3 Cooling Tower Overflow and Basin Drain	*	15,820 gpm (maximum)	2F **	4A
01D	Unit 4 Cooling Tower Overflow and Basin Drain	*	15,820 gpm (maximum)	2F **	4A
01E	NPDES Basin Minimum Flow	*	2,238 gpm (maximum)	2F **	4A
02	Detention Pond (I-pond) Stormwater	222 gpm	22,266 gpm (10 yr - 24 hr rainfall event)		4A
02A	Detention Pond Bottom Drain	*			4A
02B	Fire Training Runoff	*			4A
02C	NPDES Basin Emergency Overflow Stormwater	*		2F **	4A
	* Intermittent or Emergency Discharge				
	** During periods of Chlorination				

Please print or type in the unshaded areas only.

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

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	**
03	Ash Transport Water Stormwater	32,381 gpm	50,000 gpm (maximum)	4C	4A
03A	No. 2 Sewage Treatment Plant	12 gpm	120 gpm (maximum)	3A, 2F	4C, 4A
03B	No. 4 Sewage Treatment Plant	1 gpm	17 gpm (maximum)	3A, 2F	4C, 4A
03C	No. 1 Sewage Treatment Plant	0 gpm	30 gpm (maximum)	3A,, 2F	4C, 4A
03D	Coal Pile Runoff Basin	693 gpm	5,300 gpm (maximum)	4C	4A
03E	Wastewater Basins - Units 1-4	5,400 gpm	12,000 gpm (maximum)	4C	4A
03F	Low Volume Wastes - Units 1-4	5,388 gpm	8,600 gpm (maximum)	4C	4A
03G	Tractor Garage	1 gpm	500 gpm (maximum)	4C	4A
03H	Coal Pile Runoff	260 gpm	12,800 gpm (maximum)	4C	4A
03I	Chemical Cleaning Wastes	*		2K, 2C	4C, 4A
04	Service Water Final Discharge	1,527 gpm	79,200 gpm (maximum)	2F **	4A
04A	Service Water Return	*	79,200 gpm (maximum)	2F **	4A
04B	Service Water Minimum Flow	1,527 gpm	66,000 gpm (maximum)	2F **	4A
05	Unit 1 Cooling Tower Overflow and Basin Drain	*	15,820 gpm (maximum)	2F **	4A
06	Unit 2 Cooling Tower Overflow and Basin Drain	*	15,820 gpm (maximum)	2F **	4A

OFFICIAL USE ONLY (effluent guidelines sub-categories)

Please print or type in the unshaded areas only.

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

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	
07	Settling Pond Emergency Overflow Stormwater	*		1U, 2K	4A
08	Employee Car Wash Stormwater	4 gpm	325 gpm (maximum)		4A
09	Service Water Pump Seal Water	36 gpm	36 gpm (maximum)		4A
10	Service Water Screen Backwash	510 gpm	765 gpm (maximum)		4A
11	River Intake Pump Seal Water Pump Backwash	70 gpm *	70 gpm (maximum)		4A
12	Condensate, Filtered Water, and Potable Water Tank Overflows Stormwater	*		2F **	4A
13	Units 1-2 Wastewater Basin Emergency Overflow	*	4,300 gpm (maximum)		4A
14	Units 3-4 Wastewater Basin Emergency Overflow	*	4,300 gpm (maximum)		4A

OFFICIAL USE ONLY (effluent guidelines sub-categories)

CONTINUED FROM THE FRONT

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

[X] 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)
	See attachment for intermittent discharges Analyses on overflows and emergency discharges are submitted with the quarterly operation monitoring reports.							

III. PRODUCTION

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

[X] 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) [X] 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) [X] 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)*

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) X NO (go to Item VI-B)

CONTINUE ON REVERSE

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) X 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?

X 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)*
Alabama Power Company General Test Laboratory	Building Number 8 P. O. Box 2641 Birmingham, AL 35291	(205) 664-6081	All except, pH, temperature, Total Residual Chlorine, and Fecal Coliform

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 designed 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.)
R. H. Haubein, Senior Vice President, Fossil and Hydro Power	(404) 526-7980
C. SIGNATURE RH Haubein	D. DATE SIGNED 5/23/96

INTERMITTENT FLOW DESCRIPTIONS
Form 2C II.C. Attachment

Outfalls 01C, 01D, 05, and 06 - Cooling Tower Overflow and Basin Drain

Overflows from cooling towers may occur infrequently during equipment malfunction or emergency conditions. The estimated maximum overflow discharge (15,580 gpm) is the design makeup water flow. Draining of the cooling tower basins may occur during unit outages - the frequency is dependent on unit operations (estimated at twice per year).

Outfall 01E - NPDES Basin Minimum Flow

NPDES system minimum flows typically occur during periods of unit outage or cooling tower biocide treatment due to the reduced cooling tower blowdown. The effluent is service water with a maximum discharge of 2,238 gpm.

Outfall 02A - Detention Pond Bottom Drain

Discharges from the Detention Pond through the bottom drain could occur if necessary to perform dike, dam, or pond maintenance. No discharges from this outfall have occurred to date.

Outfall 02B - Fire Training Runoff

Discharges of filtered water used for fire training purposes may occur during the estimated 20 classes per year conducted at the site.

Outfall 02C - NPDES Basin Emergency Overflow

The normal discharge for the NPDES basin is through OSN 01. In the event of equipment malfunctions or emergency conditions the basin may discharge through this outfall. Past events have been infrequent and of short duration.

Outfall 03I - Chemical Cleaning Wastes

Boiler cleaning wastes are usually treated with sodium hydroxide or lime to a pH sufficient to precipitate the iron and copper. The supernate is then pumped to the ash pond via the waste water basin.

Outfall 04A - Service Water Return

Service water is normally used as cooling tower makeup. Therefore, discharges from the service water return are highly dependent on unit operation. Based on current unit operation, this outfall discharges approximately 10% of the time. This percentage is variable and could increase or decrease with the plant's generation.

Outfall 07 - Settling Pond Emergency Overflow

The normal settling pond discharge is through the ash transport bleedoff system with subsequent discharge through the Final Plant Discharge OSN01. Discharges through this outfall may occur during periods of equipment malfunction, heavy rainfall, or emergency conditions. Overflow volume is variable with an estimated maximum of 17,000 gpm.

Outfall 11 - River Intake - Pump Backwash

River intake pump backwash occurs approximately twice per year. Non-contact river water from the intake piping system discharges by gravity through the four intake pumps.

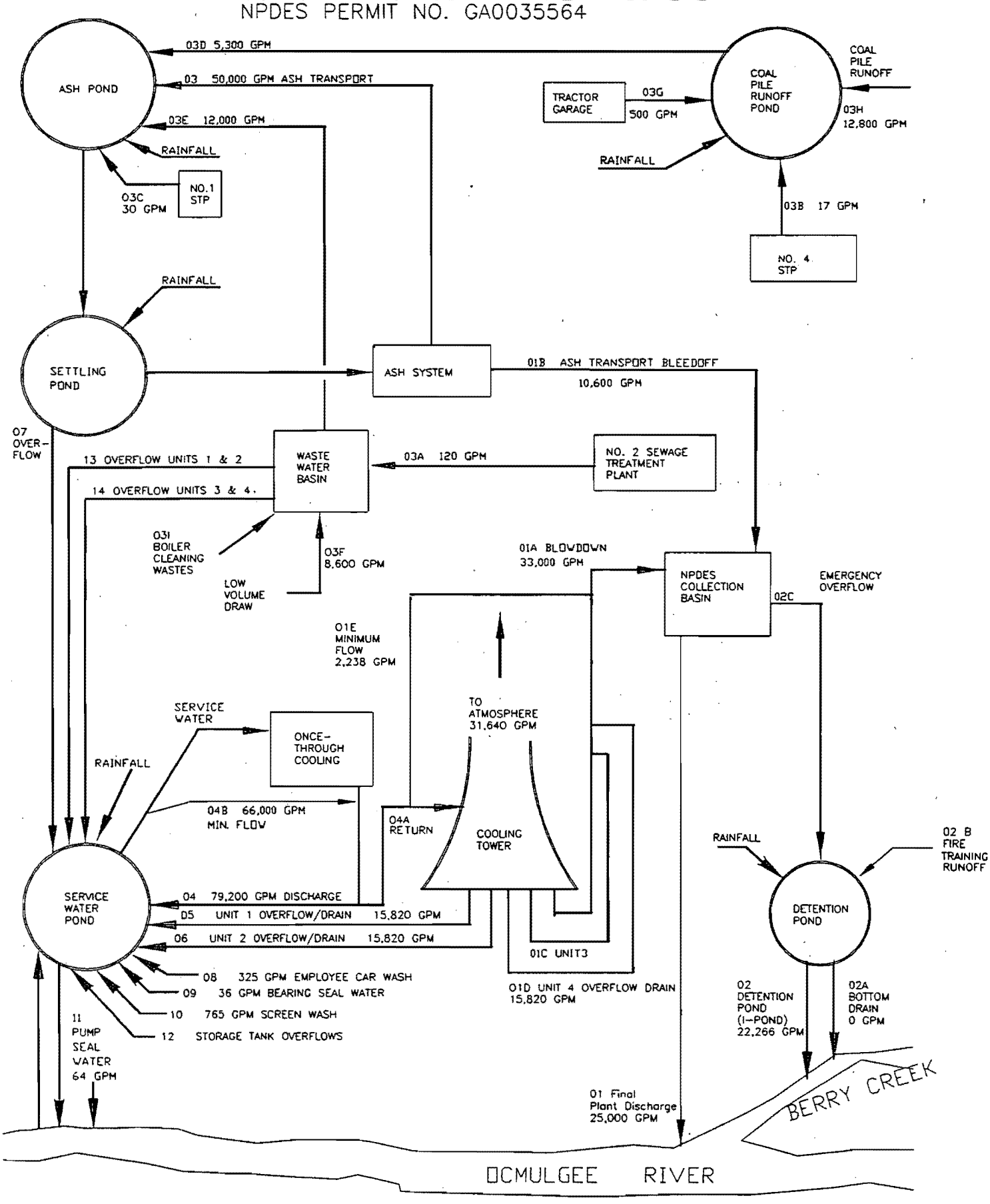
Outfall 12 - Condensate, Filtered Water, and Potable Water Tank Overflows

Storage tanks could overflow during atypical operating conditions. These infrequent overflows would consist of either condensate, demineralized water, filtered water, or potable water. An overflow is typically less than 100 gpm and short in duration.

Outfalls 13 & 14 - Wastewater Basin Emergency Overflows

Discharges could occur from equipment malfunction or emergency conditions.

GEORGIA POWER COMPANY PLANT SCHERER
NPDES PERMIT NO. GA0035564



NOTE: ALL FLOWS ARE MAXIMUMS

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

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

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

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

OUTFALL NO. 01

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 (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG. VALUE (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	<308					1	mg/l	lb/day	2		1
b. Chemical Oxygen Demand (COD)	5	770					1	mg/l	lb/day	2		1
c. Total Organic Carbon (TOC)	2.27	350					1	mg/l	lb/day	2.09		1
d. Total Suspended Solids (TSS)	2	308					1	mg/l	lb/day	10		1
e. Ammonia *(as N)*	<.005	<.77					1	mg/l	lb/day	<.005		1
f. Flow	VALUE 12,788		VALUE		VALUE 25,000 max		8	gpm		VALUE		
g. Temperature *(winter)*	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature *(summer)*	VALUE 20.3		VALUE		VALUE		8	°C		VALUE 19.9		8
i. pH	MINIMUM 8.38	MAXIMUM 8.54	MINIMUM	MAXIMUM			4	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	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCEN-TRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCEN-TRATION	c. LONG TERM AVRG. VALUE (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)		X	<.02	<3.1					1	mg/l	lb/day	.13		1
b. Chlorine, Total Residual	X		0						4	mg/l	lb/day	0		4
c. Color	X		10						1	pcu		21		1
d. Fecal Coliform	X		<1.0						1	col/100ml		<1.0		1
e. Fluoride (16984-48-8)	X		1.3	200					1	mg/l	lb/day	.09		1
f. Nitrate-Nitrite *(as N)*	X		.15	23.1					1	mg/l	lb/day	.51		1

CONTINUE ON REVERSE

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)	X		.19	29.3					1	mg/l	lb/day	.18		1
h. Oil and Grease	X		1.0	154					1	mg/l	lb/day	<1		1
i. Phosphorus (as P), Total (7723-14-0)	X		.126	19.4					1	mg/l	lb/day	.055		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)	X		40.1	6175					1	mg/l	lb/day	4.4		1
l. Sulfide (as SO_2) (14265-45-3)	X		.08	12.3					1	mg/l	lb/day	.08		1
m. Sulfite (as SO_3) (14265-45-3)		X	<2.0	<308					1	mg/l	lb/day	<2.0		1
n. Surfactants		X	<.01	<1.54					1	mg/l	lb/day	.02		1
o. Aluminum, Total (7440-39-3)	X		.969	149					1	mg/l	lb/day	1.18		1
p. Barium, Total (7440-39-3)	X		.347	53.4					1	mg/l	lb/day	.023		1
q. Boron, Total (7440-42-8)		X	<.002	<.31					1	mg/l	lb/day	<.002		1
r. Cobalt, Total (7440-48-4)		X	<.002	<.31					1	mg/l	lb/day	<.002		1
s. Iron, Total (7439-89-6)	X		.076	11.7					1	mg/l	lb/day	1.184		1
t. Magnesium, Total (7439-95-4)	X		4.64	715					1	mg/l	lb/day	1.62		1
u. Molybdenum, Total (7439-98-7)	X		.123	18.9					1	mg/l	lb/day	<.002		1
v. Manganese, Total (7439-96-5)	X		.017	2.6					1	mg/l	lb/day	.036		1
w. Tin, Total (7440-31-5		X	<.005	<.77					1	mg/l	lb/day	<.005		1
x. Titanium, Total (7440-32-6)		X	<.002	<.31					1	mg/l	lb/day	.038		1

 CONTINUE ON PAGE V-3

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
	01

CONTINUED FROM PAGE 3 OF FORM 2-C

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OMB No. 2040-0086
Appproval 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 of at least one analysis for that 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		X	<.003	<.46					1	mg/l	lb/day	<.003		1
2M. Arsenic, Total (7440-38-2)	X	X		.011	1.7					1	mg/l	lb/day	<.005		1
3M. Beryllium, Total, 7440-41-7	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
4M. Cadmium, Total (7440-43-9)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
5M. Chromium Total (7440-47-3)	X	X		.006	.92					1	mg/l	lb/day	<.001		1
6M. Copper, Total (7440-50-8)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
7M. Lead, Total (7439-92-1)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
8M. Mercury, Total (7439-97-6)	X		X	<.0002	<.03					1	mg/l	lb/day	<.0002		1
9M. Nickel, Total (7440-02-0)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
10M. Selenium, Total (7782-49-2)	X	X		.033	5.1					1	mg/l	lb/day	<.002		1
11M. Silver, Total (7440-22-4)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
12M. Thallium, Total (7440-28-0)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
13M. Zinc, Total (7440-66-6)	X		X	<.002	<.31					1	mg/l	lb/day	.014		1
14M. Cyanide, Total (57-12-5)	X		X	<.005	<.77					1	mg/l	lb/day	<.005		1
15M. Phenols, Total	X		X	<.01	<1.54					1	mg/l	lb/day	<.01		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		X	<.002	<.31					1	mg/l	lb/day	<.002		1
2V. Acrylonitrile (107-13-1)	X		X	<.001	<.15					1	mg/l	lb/day	<.001		1
3V. Benzene (71-43-2)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
4V. Bis (Chloromethyl) Ether (542-88-1)			X												
5V. Bromoform (75-25-2)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
6V. Carbon Tetrachloride (56-23-5)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
7V. Chlorobenzene (108-90-7)	X		X	<.001	<.15					1	mg/l	lb/day	<.001		1
8V. Chlorodibromomethane (124-48-1)	X		X	<.001	<.15					1	mg/l	lb/day	<.001		1
9V. Chloroethane (75-00-3)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
10V. 2-Chloroethylvinyl Ether (110-75-8)	X		X	<.001	<.15					1	mg/l	lb/day	<.001		1
11V. Chloroform (67-66-3)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
12V. Dichlorobromomethane (75-71-8)	X		X	<.001	<.15					1	mg/l	lb/day	<.001		1
13V. Dichlorodifluoromethane (75-71-8)			X												
14V. 1,1-Dichloroethane (75-34-3)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
15V. 1,2-Dichloroethane (107-06-2)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
16V. 1,1-Dichloroethylene (75-35-4)	X		X	<.001	<.15					1	mg/l	lb/day	<.001		1
17V. 1,2-Dichloropropane (78-87-5)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
18V. 1,3-Dichloropropylene (542-75-6)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
19V. Ethylbenzene (100-41-4)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
20V. Methyl Bromide (74-83-9)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
21V. Methyl Chloride (74-87-3)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		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'			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		X	<.002	<.31					1	mg/l	lb/day	<.002		1
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
24V. Tetrachloroethylene (127-18-4)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
25V. Toluene (108-88-3)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
26V. 1,2-Trans-Dichloroethylene (156-60-5)	X		X	<.001	<.15					1	mg/l	lb/day	<.001		1
27V. 1,1,1-Trichloroethane (71-56-6)	X		X	<.001	<.15					1	mg/l	lb/day	<.001		1
28V. 1,1,2-Trichloroethane (79-00-5)	X		X	<.002	<.31					1	mg/l	lb.day	<.002		1
29V. Trichloroethylene (79-01-6)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
30V. Trichlorofluoromethane (75-69-4)			X												
31V. Vinyl Chloride (75-01-4)	X		X	<.001	<.15					1	lmg/l	lb/day	<.001		1
GC/MS FRACTION — ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X		X	<.004	<.62					1	mg/l	lb/day	<.004		1
2A. 2,4-Dichlorophenol (120-83-2)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
3A. 2,4-Dimethylphenol (105-67-9)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
5A. 2,4-Dinitrophenol (51-28-5)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
6A. 2-Nitrophenol (88-75-5)	X		X	<.004	<.62					1	mg/l	lb/day	<.004		1
7A. 4-Nitrophenol (100-02-7)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
8A. P-Chloro-M-Cresol (59-50-7)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
9A. Pentachlorophenol (87-86-5)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
10A. Phenol (108-95-2)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
11A. 2,4,6-Trichlorophenol (88-06-2)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		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		X	<.002	<.31					1	mg/l	lb/day	<.002		1
2B. Acenaphtylene (208-96-8)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
3B. Anthracene (120-12-7)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
4B. Benzidine (92-87-5)	X		X	<.007	<1.08					1	mg/l	lb/day	<.007		1
5B. Benzo (a) Anthracene (56-55-3)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
6B. Benzo (a) Pyrene (50-32-8)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
7B. 3,4-Benzo-fluoranthene (205-99-2)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
8B. Benzo (ghi) Perylene (191-24-2)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
9B. Benzo (k) Fluoranthene (207-08-9)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
10B. Bis (2-Chloro-ethoxy) Methane (111-91-1)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
11B. Bis (2-Chloro-ethyl) Ether (111-44-4)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
12B. Bis (2-Chloro-isopropyl) Ether (102-60-1)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
13B. Bis (2-Ethyl-hexyl) Phthalate (117-81-7)	X		X	<.004	<.62					1	mg/l	lb/day	<.004		1
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
15B. Butyl Benzyl Phthalate (85-68-7)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
16B. 2-Chloro-naphthalene (91-58-7)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
18B. Chrysene (218-01-9)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
19B. Dibenzo (a,h) Anthracene (53-70-3)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
20B. 1,2-Dichloro-benzene (95-50-1)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
21B. 1,3-Dichloro-benzene (541-73-1)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
	01

Form Approved.
OMB No. 2040-0086
Appproval 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		X	<.004	<.62					1	mg/l	lb/day	<.004		1
23B. 3,3-Dichlorobenzidine (91-94-1)	X		X	<.013	<2.0					1	mg/l	lb/day	<.013		1
24B. Diethyl Phthalate (84-66-2)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
25B. Dimethyl Phthalate (131-11-3)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
26B. Di-N-Butyl Phthalate (84-74-2)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
27B. 2,4-Dinitrotoluene (121-14-2)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
28B. 2,6-Dinitrotoluene (606-20-2)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
29B. Di-N-Octyl Phthalate (117-84-0)	X		X	<.004	<.62					1	mg/l	lb/day	<.004		1
30B. 1,2-Diphenylhydrazine *(as Azobenzene)* (122-66-7)	X		X	<.003	<.46					1	mg/l	lb/day	<.003.		1
31B. Fluoranthene (206-44-0)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
32B. Fluorene (86-73-7)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
33B. Hexachlorobenzene (118-74-1)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
34B. Hexachlorobutadiene (87-68-3)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
35B. Hexachlorocyclopentadiene (77-47-4)	X		X	<.001	<.15					1	mg/l	lb/day	<.001		1
36B. Hexachloroethane (67-72-1)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
38B. Isophorone (78-59-1)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
39B. Naphthalene (91-20-3)	X		X	<.003	<.46					1	mg/l	lb/day	<.003		1
40B. Nitrobenzene (98-95-3)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
41B. N-Nitrosodimethylamine (62-75-9)	X		X	<.003	>.46					1	mg/l	lb/day	<.003		1
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		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		X	<.003	<.46					1	mg/l	lb/day	<.003		1
44B. Phenanthrene (85-01-8)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
45B. Pyrene (129-00-0)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
46B. 1,2,4-Trichlorobenzene (120-82-1)	X		X	<.002	<.31					1	mg/l	lb/day	<.002		1
GC/MS FRACTION — PESTICIDES															
1P. Aldrin (309-00-2)			X	<.00002	<.003					1	mg/l	lb/day	<.00002		1
2P. α-BHC (319-84-6)			X	<.00002	<.003					1	mg/l	lb/day	<.00002		1
3P. β-BHC (319-85-7)			X	<.00002	<.003					1	mg/l	ld/day	<.00002		1
4P. γ-BHC (58-89-9)			X	<.00002	<.003					1	mg/l	lb/day	<.00002		1
5P. δ-BHC (319-86-8)			X	<.000007	<.001					1	mg/l	lb/day	<.000007		1
6P. Chlordane (57-74-9)			X	<.0005	<.077					1	mg/l	lb/day	<.0005		1
7P. 4,4'-DDT (50-29-3)			X	<.000008	<.001					1	mg/l	lb/day	<.000008		1
8P. 4,4'-DDE (72-55-9)			X	<.00002	<.003					1	mg/l	lb/day	<.00002		1
9P. 4,4'-DDD (72-54-8)			X	<.000004	<.001					1	mg/l	lb/day	<.000004		1
10P. Dieldrin (60-57-1)			X	<.000007	<.001					1	mg/l	lb/day	<.000007		1
11P. α-Endosulfan (115-29-7)			X	<.00001	<.002					1	mg/l	lb/day	<.00001		1
12P. β-Endosulfan (115-29-7)			X	<.000004	<.001					1	mg/l	lb/day	<.000004		1
13P. Endosulfan Sulfate (1031-07-8)			X	<.00002	<.003					1	mg/l	lb/day	<.00002		1
14P. Endrin (72-20-8)			X	<.00002	<.003					1	mg/l	lb/day	<.00002		1
15P. Endrin Aldehyde (7421-93-4)			X	<.00002	<.003					1	mg/l	lb/day	<.00002		1
16P. Heptachlor (76-44-8)			X	<.00002	<.003					1	mg/l	lb/day	<.00002		1

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
	01

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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	c. 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	<.00002	<.003					1	mg/l	lb/day	<.00002		1
18P. PCB-1242 (53469-21-9)			X	<.0005	<.077					1	mg/l	lb/day	<.0005		1
19P. PCB-1254 (11097-69-1)			X	<.0005	<.077					1	mg/l	lb/day	<.0005		1
20P. PCB-1221 (11104-28-2)			X	<.0005	<.077					1	mg/l	lb/day	<.0005		1
21P. PCB-1232 (11141-16-5)			X	<.0005	<.077					1	mg/l	lb/day	<.0005		1
22P. PCB-1248 (12672-29-6)			X	<.0005	<.077					1	mg/l	lb/day	<.0005		1
23P. PCB-1260 (11096-82-5)			X	<.0005	<.077					1	mg/l	lb/day	<.0005		1
24P. PCB-1016 (12674-11-2)			X	<.0005	<.077					1	mg/l	lb/day	<.0005		1
25P. Toxaphene (8001-35-2)			X	<.002	<.31					1	mg/l	lb/day	<.002		1

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate hseets *(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)

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)	<1						1	mg/l	lb/day	<.1		1
b. Chemical Oxygen Demand (COD)	1						1	mg/l	lb/day	4		1
c. Total Organic Carbon (TOC)	1.96						1	mg/l	lb/day	2.41		1
d. Total Suspended Solids (TSS)	<1						1	mg/l	lb/day	<.1		1
e. Ammonia *(as N)*	<.005						1	mg/l	lb/day	.010		1
f. Flow	VALUE 1,527 calc		VALUE		VALUE 79,200 max			gpm		VALUE		
g. Temperature *(winter)*	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature *(summer)*	VALUE 22		VALUE		VALUE		8	°C		VALUE 20.4		8
i. pH	MINIMUM 7.04	MAXIMUM 7.55	MINIMUM	MAXIMUM			4	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)	X		.14						1	mg/l	lb/day	<.02		1
b. Chlorine, Total Residual	X		.035						4	mg/l	lb/day	0		4
c. Color	X		13						1	pcu		8		1
d. Fecal Coliform	X		<5						2	col/100ml		<1		1
e. Fluoride (16984-48-8)	X		.11						1	mg/l	lb/day	.14		1
f. Nitrate-Nitrite *(as N)*	X		.22						1	mg/l	lb/day	.25		1

CONTINUE ON REVERSE

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)	X		.11						1	mg/l	lb/day	.26		1
h. Oil and Grease	X		<1.0						1	mg/l	lb/day	<1.0		1
i. Phosphorus (as P), Total (7723-14-0)	X		.02						1	mg/l	lb/day	.022		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)	X		6.7						1	mg/l	lb/day	6.9		1
l. Sulfide (as SO_3) (14265-45-3)	X		.08						1	mg/l	lb/day	.05		1
m. Sulfite (as SO_3) (14265-45-3)		X	<2.0						1	mg/l	lb/day	<2.0		1
n. Surfactants	X		.02						1	mg/l	lb/day	.02		1
o. Aluminum, Total (7440-39-3)	X		.214						1	mg/l	lb/day	.212		1
p. Barium, Total (7440-39-3)	X		.019						1	mg/l	lb/day	.018		1
q. Boron, Total (7440-42-8)		X	<.002						1	mg/l	lb/day	<.002		1
r. Cobalt, Total (7440-48-4)		X	<.002						1	mg/l	lb/day	<.002		1
s. Iron, Total (7439-89-6)	X		.14						1	mg/l	lb/day	.144		1
t. Magnesium, Total (7439-95-4)	X		2.11						1	mg/l	lb/day	2.05		1
u. Molybdenum, Total (7439-98-7)		X	<.002						1	mg/l	lb/day	<.002		1
v. Manganese, Total (7439-96-5)	X		.011						1	mg/l	lb/day	.011		1
w. Tin, Total (7440-31-5		X	<.005						1	mg/l	lb/day	<.005		1
x. Titanium, Total (7440-32-6)		X	<.002						1	mg/l	lb/day	<.002		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
	04

Form Approved.
OMB No. 2040-0086
Appproval 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 of at least one analysis for that 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		X	<.003						1	mg/l	lb/day	<.003		1
2M. Arsenic, Total (7440-38-2)	X		X	<.005						1	mg/l	lb/day	<.005		1
3M. Beryllium, Total, 7440-41-7	X		X	<.003						1	mg/l	lb/day	<.003		1
4M. Cadmium, Total (7440-43-9)	X		X	<.002						1	mg/l	lb/day	<.002		1
5M. Chromium Total (7440-47-3)	X		X	<.001						1	mg/l	lb/day	<.001		1
6M. Copper, Total (7440-50-8)	X		X	<.002						1	mg/l	lb/day	<.002		1
7M. Lead, Total (7439-92-1)	X		X	<.002						1	mg/l	lb/day	<.002		1
8M. Mercury, Total (7439-97-6)	X		X	<.0002						1	mg/l	lb/day	<.0002		1
9M. Nickel, Total (7440-02-0)	X		X	<.002						1	mg/l	lb/day	<.002		1
10M. Selenium, Total (7782-49-2)	X		X	<.002						1	mg/l	lb/day	<.002		1
11M. Silver, Total (7440-22-4)	X		X	<.002						1	mg/l	lb/day	<.002		1
12M. Thallium, Total (7440-28-0)	X		X	<.003						1	mg/l	lb/day	<.003		1
13M. Zinc, Total (7440-66-6)		X	X	.033				.029		2	mg/l	lb/day	.006		2
14M. Cyanide, Total (57-12-5)	X		X	<.005						1	mg/l	lb/day	<.005		1
15M. Phenols, Total	X		X	<.01						1	mg/l	lb/day	<.01		1
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

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	c. 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	<.002						1	mg/l	lb/day	<.002		1
2V. Acrylonitrile (107-13-1)	X		X	<.001						1	mg/l	lb/day	<.001		1
3V. Benzene (71-43-2)	X		X	<.002						1	mg/l	lb/day	<.002		1
4V. Bis (Chloromethyl) Ether (542-88-1)			X												
5V. Bromoform (75-25-2)	X		X	<.003						1	mg/l	lb/day	<.003		1
6V. Carbon Tetrachloride (56-23-5)	X		X	<.002						1	mg/l	lb/day	<.002		1
7V. Chlorobenzene (108-90-7)	X		X	<.001						1	mg/l	lb/day	<.001		1
8V. Chlorodibromomethane (124-48-1)	X		X	<.001						1	mg/l	lb/day	<.001		1
9V. Chloroethane (75-00-3)	X		X	<.002						1	mg/l	lb/day	<.002		1
10V. 2-Chloroethylvinyl Ether (110-75-8)	X		X	<.001						1	mg/l	lb/day	<.001		1
11V. Chloroform (67-66-3)	X		X	<.002						1	mg/l	lb/day	<.002		1
12V. Dichlorobromomethane (75-71-8)	X		X	<.001						1	mg/l	lb/day	<.001		1
13V. Dichlorodifluoromethane (75-71-8)			X												
14V. 1,1-Dichloroethane (75-34-3)	X		X	<.002						1	mg/l	lb/day	<.002		1
15V. 1,2-Dichloroethane (107-06-2)	X		X	<.002						1	mg/l	lb/day	<.002		1
16V. 1,1-Dichloroethylene (75-35-4)	X		X	<.001						1	mg/l	lb/day	<.001		1
17V. 1,2-Dichloropropane (78-87-5)	X		X	<.002						1	mg/l	lb/day	<.002		1
18V. 1,3-Dichloropropylene (542-75-6)	X		X	<.002						1	mg/l	lb/day	<.002		1
19V. Ethylbenzene (100-41-4)	X		X	<.002						1	mg/l	lb/day	<.002		1
20V. Methyl Bromide (74-83-9)	X		X	<.002						1	mg/l	lb/day	<.002		1
21V. Methyl Chloride (74-87-3)	X		X	<.002						1	mg/l	lb/day	<.002		1

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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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Appproval 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		X	<.002						1	mg/l	lb/day	<.002		1
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	X		X	<.002						1	mg/l	lb/day	<.002		1
24V. Tetrachloroethylene (127-18-4)	X		X	<.002						1	mg/l	lb/day	<.002		1
25V. Toluene (108-88-3)	X		X	<.002						1	mg/l	lb/day	<.002		1
26V. 1,2-Trans-Dichloroethylene (156-60-5)	X		X	<.001						1	mg/l	lb/day	<.001		1
27V. 1,1,1-Trichlorothene (71-55-6)	X		X	<.001						1	mg/l	lb/day	<.001		1
28V. 1,1,2-Trichloroethane (79-00-5)	X		X	<.002						1	mg/l	lb.day	<.002		1
29V. Trichloroethylene (79-01-6)	X		X	<.002						1	mg/l	lb/day	<.002		1
30V. Trichlorofluoromethane (75-69-4)			X												
31V. Vinyl Chloride (75-01-4)	X		X	<.001						1	mg/l	lb/day	<.001		1
GC/MS FRACTION — ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X		X	<.004						1	mg/l	lb/day	<.004		1
2A. 2,4-Dichlorophenol (120-83-2)	X		X	<.003						1	mg/l	lb/day	<.003		1
3A. 2,4-Dimethylphenol (105-67-9)	X		X	<.003						1	mg/l	lb/day	<.003		1
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X		X	<.003						1	mg/l	lb/day	<.003		1
5A. 2,4-Dinitrophenol (51-28-5)	X		X	<.002						1	mg/l	lb/day	<.002		1
6A. 2-Nitrophenol (88-75-5)	X		X	<.004						1	mg/l	lb/day	<.004		1
7A. 4-Nitrophenol (100-02-7)	X		X	<.002						1	mg/l	lb/day	<.002		1
8A. P-Chloro-M-Cresol (59-50-7)	X		X	<.002						1	mg/l	lb/day	<.002		1
9A. Pentachlorophenol (87-86-5)	X		X	<.002						1	mg/l	lb/day	<.002		1
10A. Phenol (108-95-2)	X		X	<.003						1	mg/l	lb/day	<.003		1
11A. 2,4,6-Trichlorophenol (88-06-2)	X		X	<.003						1	mg/l	lb/day	<.003		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		X	<.002						1	mg/l	lb/day	<.002		1
2B. Acenaphtylene (208-96-8)	X		X	<.002						1	mg/l	lb/day	<.002		1
3B. Anthracene (120-12-7)	X		X	<.002						1	mg/l	lb/day	<.002		1
4B. Benzidine (92-87-5)	X		X	<.007						1	mg/l	lb/day	<.007		1
5B. Benzo (a) Anthracene (56-55-3)	X		X	<.003						1	mg/l	lb/day	<.003		1
6B. Benzo (a) Pyrene (50-32-8)	X		X	<.003						1	mg/l	lb/day	<.003		1
7B. 3,4-Benzo-fluoranthene (205-99-2)	X		X	<.003						1	mg/l	lb/day	<.003		1
8B. Benzo (ghi) Perylene (191-24-2)	X		X	<.002						1	mg/l	lb/day	<.002		1
9B. Benzo (k) Fluoranthene (207-08-9)	X		X	<.003						1	mg/l	lb/day	<.003		1
10B. Bis (2-Chloro-ethoxy) Methane (111-91-1)	X		X	<.002						1	mg/l	lb/day	<.002		1
11B. Bis (2-Chloro-ethyl) Ether (111-44-4)	X		X	<.002						1	mg/l	lb/day	<.002		1
12B. Bis (2-Chloro-isopropyl) Ether (102-60-1)	X		X	<.002						1	mg/l	lb/day	<.002		1
13B. Bis (2-Ethyl-hexyl) Phthalate (117-81-7)	X		X	<.004						1	mg/l	lb/day	<.004		1
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)	X		X	<.002						1	mg/l	lb/day	<.002		1
15B. Butyl Benzyl Phthalate (85-68-7)	X		X	<.003						1	mg/l	lb/day	<.003		1
16B. 2-Chloro-naphthalene (91-58-7)	X		X	<.002						1	mg/l	lb/day	<.002		1
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)	X		X	<.002						1	mg/l	lb/day	<.002		1
18B. Chrysene (218-01-9)	X		X	<.003						1	mg/l	lb/day	<.003		1
19B. Dibenzo (a,h) Anthracene (53-70-3)	X		X	<.003						1	mg/l	lb/day	<.003		1
20B. 1,2-Dichloro-benzene (95-50-1)	X		X	<.003						1	mg/l	lb/day	<.003		1
21B. 1,3-Dichloro-benzene (541-73-1)	X		X	<.003						1	mg/l	lb/day	<.003		1

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
	04

Form Approved.
OMB No. 2040-0086
Appproval 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		X	<.004						1	mg/l	lb/day	<.004		1
23B. 3,3-Dichlorobenzidine (91-94-1)	X		X	<.013						1	mg/l	lb/day	<.013		1
24B. Diethyl Phthalate (84-66-2)	X		X	<.003						1	mg/l	lb/day	<.003		1
25B. Dimethyl Phthalate (131-11-3)	X		X	<.003						1	mg/l	lb/day	<.003		1
26B. Di-N-Butyl Phthalate (84-74-2)	X		X	<.002						1	mg/l	lb/day	<.002		1
27B. 2,4-Dinitrotoluene (121-14-2)	X		X	<.003						1	mg/l	lb/day	<.003		1
28B. 2,6-Dinitrotoluene (606-20-2)	X		X	<.002						1	mg/l	lb/day	<.002		1
29B. Di-N-Octyl Phthalate (117-84-0)	X		X	<.004						1	mg/l	lb/day	<.004		1
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	X		X	<.003						1	mg/l	lb/day	<.003.		1
31B. Fluoranthene (206-44-0)	X		X	<.002						1	mg/l	lb/day	<.002		1
32B. Fluorene (86-73-7)	X		X	<.003						1	mg/l	lb/day	<.003		1
33B. Hexachlorobenzene (118-74-1)	X		X	<.002						1	mg/l	lb/day	<.002		1
34B. Hexachlorobutadiene (87-68-3)	X		X	<.002						1	mg/l	lb/day	<.002		1
35B. Hexachlorocyclopentadiene (77-47-4)	X		X	<.001						1	mg/l	lb/day	<.001		1
36B. Hexachloroethane (67-72-1)	X		X	<.002						1	mg/l	lb/day	<.002		1
37B. Indene (1,2,3-cd) Pyrene (193-39-5)	X		X	<.003						1	mg/l	lb/day	<.003		1
38B. Isophorone (78-59-1)	X		X	<.002						1	mg/l	lb/day	<.002		1
39B. Naphthalene (91-20-3)	X		X	<.003						1	mg/l	lb/day	<.003		1
40B. Nitrobenzene (98-95-3)	X		X	<.002						1	mg/l	lb/day	<.002		1
41B. N-Nitrosodimethylamine (62-75-9)	X		X	<.003						1	mg/l	lb/day	<.003		1
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X		X	<.002						1	mg/l	lb/day	<.002		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		X	<.003						1	mg/l	lb/day	<.003		1
44B. Phenanthrene (85-01-8)	X		X	<.002						1	mg/l	lb/day	<.002		1
45B. Pyrene (129-00-0)	X		X	<.002						1	mg/l	lb/day	<.002		1
46B. 1,2,4-Trichlorobenzene (120-82-1)	X		X	<.002						1	mg/l	lb/day	<.002		1
GC/MS FRACTION — PESTICIDES															
1P. Aldrin (309-00-2)			X	<.00002						1	mg/l	lb/day	<.00002		1
2P. α-BHC (319-84-6)			X	<.00002						1	mg/l	lb/day	<.00002		1
3P. β-BHC (319-85-7)			X	<.00002						1	mg/l	lb/day	<.00002		1
4P. γ-BHC (58-89-9)			X	<.00002						1	mg/l	lb/day	<,.00002		1
5P. δ-BHC (319-86-8)			X	<.000007						1	mg/l	lb/day	<.000007		1
6P. Chlordane (57-74-9)			X	<.0005						1	mg/l	lb/day	<.0005		1
7P. 4,4'-DDT (50-29-3)			X	<.000008						1	mg/l	lb/day	<.000008		1
8P. 4,4'-DDE (72-55-9)			X	<.00002						1	mg/l	lb/day	<.00002		1
9P. 4,4'-DDD (72-54-8)			X	<.000004						1	mg/l	lb/day	<.000004		1
10P. Dieldrin (60-57-1)			X	<.000007						1	mg/l	lb/day	<.000007		1
11P. α-Endosulfan (115-29-7)			X	<.00001						1	mg/l	lb/day	<.00001		1
12P. β-Endosulfan (115-29-7)			X	<.000004						1	mg/l	lb/day	<.000004		1
13P. Endosulfan Sulfate (1031-07-8)			X	<.00002						1	mg/l	lb/day	<.00002		1
14P. Endrin (72-20-8)			X	<.00002						1	mg/l	lb/day	<.00002		1
15P. Endrin Aldehyde (7421-93-4)			X	<.00002						1	mg/l	lb/day	<.00002		1
16P. Heptachlor (76-44-8)			X	<.00002						1	mg/l	lb/day	<.00002		1

 CONTINUE ON PAGE V-9

CONTINUED FROM PAGE V-8

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
	04

Form Approved.
OMB No. 2040-0086
Appproval 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	<.00002						1	mg/l	lb/day	<.00002		1
18P. PCB-1242 (53469-21-9)			X	<.0005						1	mg/l	lb/day	<.0005		1
19P. PCB-1254 (11097-69-1)			X	<.0005						1	mg/l	lb/day	<.0005		1
20P. PCB-1221 (11104-28-2)			X	<.0005						1	mg/l	lb/day	<.0005		1
21P. PCB-1232 (11141-16-5)			X	<.0005						1	mg/l	lb/day	<.0005		1
22P. PCB-1248 (12672-29-6)			X	<.0005						1	mg/l	lb/day	<.0005		1
23P. PCB-1260 (11096-82-5)			X	<.0005						1	mg/l	lb/day	<.0005		1
24P. PCB-1016 (12674-11-2)			X	<.0005						1	mg/l	lb/day	<.0005		1
25P. Toxaphene (8001-35-2)			X	<.002						1	mg/l	lb/day	<.002		1

SCHERER

ASH POND COTREATMENT

AVAILABLE INFORMATION

Low Vol. Waste + Coal Pile	24.91 MGD	
Ash Transport Water	0	Note: 100% Recycle
Total Dry Weather Flow	24.91 MG	
Watershed Runoff	312.5 Acres	
Ash Pond Surface	490 Acres	
Total Runoff Area	803 Acres	
10-year, 24 hour storm	5.8 Inches	
Annual Rainfall	49.76 Inches	Note: 0.136 Inches/Day
RAINFALL RUNOFF	97.49 MG	
REQUIRED WATER VOLUME	122.4 MG	
AVAILABLE WATER VOLUME	12/31/02	
Strict Interpretation	16,014,700 CY	or 3234.0 MG

Ash Trans. Recycle	41000 GPM

DRY WEATHER FLOWS (MAXIMUM FLOWS USED)

Low Vol. Wastes + Coal Pile	17300 GPM
Ash Transport Water (Net)	0 GPM

RAINFALL AND RUNOFF DATA PER 91 DATA

ASH POND REMAINING STORAGE
From Fuel Services-Pond Life 12/31, Elev. 495

YEAR	2000	2001	2002
CU YDS	17,962,000	17,186,000	16,410,000
MG	3627.2	3470.5	3313.8

Strict Interpretation -
Reduce the available volume by - 395,000 cy. or 79.8 MG

NOTES:

1. The rainfall runoff was determined using the Soil Conservation Method.
2. Low volume waste includes building sumps, and the coal pile sump system.
3. Strict Interpretation is the volume available at elevation 494.5, rather than 495.
4. All flow values match the 1991 data.

06/17/96

Georgia Department of Natural Resources

205 Butler Street, S.E., East Floyd Tower, Atlanta, Georgia 30334

Reply To:
Industrial Wastewater Program
Suite 1070
404/656-4887

Lonice C. Barrett, Commissioner
Harold F. Reheis, Director
David Word, Assistant Director
Environmental Protection Division
404/656-4713

October 16, 1995

RECEIVED
OCT 18 1995
ENVIRONMENTAL AFFAIRS

Mr. S. D. Holder
Licensing & Compliance
Georgia Power Company
333 Piedmont Avenue
Atlanta, Georgia 30308

RE: Georgia Power Company - Plant Scherer
NPDES Permit No. GA 0035564

Dear Mr. Holder:

This will acknowledge receipt of the Best Management Practices (BMP) Plan Revision 1.0 dated June 10, 1995, addressing the use of biocides to control macrofouling in the above referenced facility's cooling tower and service water systems.

The Georgia Environmental Protection Division has reviewed your proposed biocide practices and hereby approves of their implementation. There shall be no detectable biocide in the final effluent based upon the method detection limit presented in the plan.

The BMP Plan shall be incorporated into the plant's NPDES permit in fulfillment of Part II.B.13, Part III.B.4., and Part III.B.11.

Should you have any questions, please contact Mr. Tom Hopkins.

Sincerely,

Lawrence W. Hedges

Lawrence W. Hedges
Program Manager
Industrial Wastewater Program

LWH:thr

MEW
U/S

Georgia Power Company
Tower Building, 17th Floor
333 Piedmont Avenue
Atlanta, Georgia 30308
Telephone 404 526-6526

S. D. Holder
Manager
Environmental Services

Georgia Power
the southern electric system

June 20, 1995

RECEIVED
JUN 27 1995
EPD-INDUSTRIAL
WASTEWATER PROGRAM

PLANT SCHERER
NPDES Permit GA0035564
Best Management Plan (BMP)

Mr. Lawrence W. Hedges
Georgia Environmental Protection Division
Industrial Wastewater Program
205 Butler Street, S.E., Floyd Towers East
Suite 1070
Atlanta, GA 30334

Dear Mr. Hedges:

In accordance with Part II.B.13, Part III.B.4, and Part III.B.11 of the Plant Scherer NPDES permit, the attached BMP plan addresses the use of biocides to control macrofouling and biofouling in the plant's cooling water systems. We request that the Division review the plan and provide written confirmation of your acceptance decision. Upon approval by the Division, the plan will be incorporated into the Plant Scherer NPDES permit.

If you have questions or require additional information, please contact Howard Shelnutt at 526-7058.

Sincerely,

S. D. Holder

S. D. Holder

hls
xc: Tom Hopkins - EPD Industrial Wastewater (w/attach)

BEST MANAGEMENT PRACTICES PLAN
PLANT SCHERER
NPDES Permit No. GA 0035564

Macrofouling and Biofouling Control
Revision 1.0
June 10, 1995

1.0 INTRODUCTION

1.1 Basis

This BMP has been developed in accordance with Part II.B.13, Part III.B.4, and Part III.B.11 of the plant's NPDES permit. This BMP addresses the use of biocides to control macrofouling and biofouling in the plant's cooling water systems. Upon approval by the Division and implementation by the plant it will become part of the NPDES Permit for the site.

1.2 Plant Site

Plant Scherer is composed of four generating units with a combined nameplate rating of 3272 Megawatts. All units are currently in commercial operation. Cooling water and service water for all units are provided from Lake Juliette. All units utilize closed cycle condenser cooling. The main unit cooling water flow is 260,000 gpm per unit. A fraction of the flow is discharged as blowdown. The average blowdown flow is 6,791 gpm per unit. This discharges into a holding basin with the service water discharge of 2,500 gpm and the Recycle blowdown of 10,600 gpm. Bulk water capacity of each unit's cooling tower system is 4.2 million gallons.

2.0 PROBLEM DESCRIPTION

2.1 Macrofouling

Various organisms can cause severe problems in generating plant water systems, depending on the plant geographic location, prevailing local conditions, and plant specific design factors. The Asiatic clam (Corbicula fluminea) is capable of blocking small heat exchanger tubing and even plugging larger diameter pipes with low flow velocities. Furthermore, once the organism is dead the relic shells can still cause blockages. Due to its life cycle, adaptability, and resistance to control methods it is extremely difficult to eliminate from water systems once it becomes established. Current control methods include use of biocides, physical cleaning of affected piping, straining of intake water, and heat treatment. Each of these control methods has limitations on effectiveness.

Slime and algae growths have always been a problem in cooling water systems. The biological growths tend to entrain silt and clays which further foul the surface and will in turn provide more substrate for biological growth. The weight of this type of fouling has caused the failure and collapse of cooling tower fill. Reduced cooling efficiency penalizes the operation of steam turbines.

Concern is growing over the likely invasion of the Zebra mussel (Dreissena polymorpha). Experience at other utilities as the organism continues its spread prove that control is extremely difficult with conventional methods and is not entirely successful. Once attached to the substrate, the mussel is not dislodged and may become the host substrate for future colonization. This leads to further blockage of the cooling system.

2.2 Site Problem

Plant Scherer has biofouling problems with slimes, algae, and the Asiatic clam. They are known to be present in the cooling water source. Algae and slimes are believed to be the dominant causes of blockage in the cooling tower fill bundles. The clams are often found in plant systems (i.e. oil coolers, auxiliary heat exchangers, low velocity piping, etc.). It is obvious that the plant is subject to infestation and is in need of a control program.

3.0 CONTROL PROGRAM

3.1 Use of Biocides

While physical and mechanical methods of control will still be employed routinely to reduce the effects of biofouling, routine treatments of biocide will likely be required to maintain efficiency of heat exchangers. An oxidizing biocide such as chlorine has long been the biocide of choice because of its proven effectiveness, ease of application and cost. Increasing restrictions on the use, storage and handling of chlorine have prompted us to seek alternate control methods. Additionally, oxidizing biocides increase the rate of corrosion in copper bearing metals which are common in heat exchangers.

Nonoxidizing biocides, such as quaternary amines, have been found to be effective on certain organisms. Quaternary amines are also effective on algae. Other advantages of the nonoxidizers are reduced frequency of application and ready adsorption of the active ingredient onto mud, silt and clay which exhausts the toxicity.

3.1.1 Service Water Routine Biological Control

Chlorine will be used for routine control of microbiological growth in the service water systems. Chlorine will be fed intermittently throughout the year to maintain control.

3.1.2 Service Water Asiatic Clam/Zebra Mussel Control

Chlorine will be used for seasonal control of Asiatic clams and Zebra mussels in the service water systems. Chlorine will be utilized as referenced in the facility NPDES Permit Part III.B.4.

3.1.3 Cooling Tower Routine Biological Control

Either an oxidizing or a nonoxidizing biocide will be used to control the growth of slime and algae in the cooling tower systems. If necessary, both types of biocide programs may be fed to maintain unit performance. The primary program will be Betz Powerline 3625 or an equivalent, a nonoxidizing biocide containing the quaternary amine ADBAC (n-alkyl dimethyl benzyl ammonium chloride). The secondary program will be chlorine, either gaseous or liquid.

3.2 Application Rates and Injection Points

3.2.1 Service Water Routine Biological Control

As a general rule, chlorine will be fed to the main service water headers just downstream from the pump intake bay. The biocide will be fed to each service water system (Units 1&2 and Units 3&4) to achieve a minimum free residual oxidant level of 0.2 ppm. Applications will normally be daily for one hour when the water temperature is above 60° F and will be reduced to once per week for one hour during winter months. It is anticipated that one hour of biocide application will be sufficient to control biological growth, but it may be applied for up to two hours.

3.2.2 Service Water Asiatic Clam/Zebra Mussel Control

Chlorine will be fed to the service water headers as above. Each service water system (i.e. Units 1&2 and Units 3&4) will be treated independently in order to insure there is no toxicity in the discharge streams. (Reference Part III.B.4.)

3.2.3 Cooling Tower Routine Biological Control

The nonoxidizing biocide will be fed to the cooling tower basin. Biocide dosage and frequency will vary based on seasonal conditions and system demand, ranging from 2 to 7.5 ppm active quaternary amine. Feed frequency will range from one to three times per week, as needed. Cooling towers will be treated independently so that there will be no simultaneous discharge of the biocide.

As an alternative, chlorine will be fed to the cooling water in place of or in addition to the nonoxidizing biocide. Chlorine dosage and frequency will vary based on seasonal conditions and system demand.

3.3 Elimination of Biocide From Systems

3.3.1 Service Water Routine Biological Control Program

The biocide program proposed will not require any detoxification.

3.3.2 Service Water Asiatic Clam/Zebra Mussel Control

The biocide program proposed will not require any detoxification.

3.3.3 Cooling Tower Routine Biological Control

During nonoxidizing biocide feed the cooling tower blowdown will be closed and will remain closed until tests show that the product concentration in the tower basin is below the detection limit of .05 ppm. A bentonite clay solution will be kept on-hand to allow for detoxification of any inadvertent overflow. When chlorine is used for biocide treatment, the discharge from the cooling tower will be controlled as currently limited in the NPDES permit for the site.

3.4 Effects in System

3.4.1 Routine Service Water Treatment

Microbiological growth in the service water coolers and heat exchangers will be minimized, thereby improving overall heat transfer and cooling efficiency. Reduced microbiological growth in the service water systems will also improve microbiological control in the systems supplied by service water, including the water treatment plants and cooling towers.

3.4.2 Asiatic Clam/Zebra Mussel Treatment

Macrofouling organisms will be eliminated throughout the water system treated. This will reduce maintenance requirements and enhance heat exchange efficiency.

3.4.3 Cooling Tower Treatment

Algae, slime and microbiological growth will be minimized throughout the cooling tower systems, resulting in improved condenser performance and reduced plugging of the tower fill.

3.5 Other Biocides and Methods of Control

It is expected that this method of treatment and control will be fully effective in controlling the biofouling experienced by this plant. However, implementation of this plan does not preclude the use of other biocides or control methods if they are shown to be equally beneficial. This plan will be revised in accordance with Section 7.0 if other biocides are found to be necessary.

4.0 MONITORING PROGRAM

4.1 Sample Collection

4.1.1 Routine Service Water Treatment

Samples will be collected from the service water system consistent with the facility NPDES permit.

The analytical method for determining the chlorine concentration is amperometric titration, 40 CFR Part 136 Method No. 31, and also listed as EPA Method 330.1. The alternative measurement method will be EPA Method 330.4, DPD.

4.1.2 Asiatic Clam/Zebra Mussel Treatment

Samples will be collected from the service water system consistent with the facility NPDES permit.

Final plant discharge chlorine levels will not exceed limits as set in the existing NPDES permit.

The analytical method for determining the chlorine concentration is amperometric titration, 40 CFR Part 136 Method No. 31, and also listed as EPA Method 330.1. The alternative measurement method will be EPA Method 330.4, DPD.

4.1.3 Condenser Cooling Water Treatment

When a quaternary amine biocide is used, concentration will be measured at two to four hour intervals. No discharge will be allowed if the concentration is in excess of 0.05 ppm.

The analytical method for determining concentration of the nonoxidizing biocide is the Betz Clam-Trol CT-2 Methyl Orange Method. The detection limit (MDL) for this method is 0.05 ppm as Powerline 3625 (0.025 ppm active ADBAC quat). Other analytical methods, which meet or improve the (MDL), may be utilized without modification of this plan. The Division will be notified of any change in analytical methods. QA/QC data such as instrument calibration curves and instrument maintenance records will be retained for review by the Division.

In the event of an inadvertent overflow, the bentonite clay product will be added and samples will be collected once per hour at the plant discharge to insure the biocide is not detectable.

4.2 Reporting of Monitoring Results

Biocide concentration in the service water systems and cooling tower basins will be measured and recorded each date that they are treated, as outlined in Section 4.1. Results from samples representative of the discharge will be reported on the NPDES Quarterly Operation Monitoring Report (OMR) in a suitably concise format. Results of operational analyses will be retained for twelve months and will be available for review by the Division.

4.3 Equipment Inspections

To evaluate the effectiveness of the control programs, the main condensers, auxiliary coolers and systems treated will be periodically inspected for the presence of microbiological growth and macrofouling organisms or relics of organisms.

5.0 OPTIMIZATION PROGRAM

5.1 Equipment Maintenance

All associated equipment and monitoring instruments will be maintained in proper operating conditions at all times.

5.2 Biocide Usage

The amount of biocide used will be re-evaluated periodically to determine if lesser amounts can be effectively utilized. This determination will be based on the results of plant inspections, information from other facilities, plant performance data and the current scientific literature. If it appears that lower concentrations can effectively control fouling in the systems, then concentrations will be reduced accordingly and more intense inspections will be performed to document the effectiveness. If fouling is found subsequent to any reductions the concentrations may be increased to the initial levels.

6.0 NPDES PERMIT CONDITIONS

6.1 Incorporation of BMP into Permit

Upon approval by the Division and implementation by the plant, the plan will be incorporated into the NPDES Permit for the facility.

7.0 REVISIONS

7.1 Revising the BMP

This BMP may be revised if necessary. The Plant Manager must approve the revision. A copy of the revised plan will be furnished to the Manager of Environmental Affairs. The Environmental Protection Division must approve any revision prior to implementation.

Approved for implementation: Date 6/12/95

Plant Manager B A Pollock

PERMIT NO. GA0035564

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Mir P

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
P. O. Box 4545
Atlanta, Georgia 30302

is authorized to discharge from a facility located at

Scherer Steam Electric Generating Station
Georgia Highway 23
Juliette, Monroe County, Georgia 31406

to receiving waters Berry Creek, Rum Creek and the Ocmulgee River

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 16, 1992.

This permit and the authorization to discharge shall expire at midnight, February 28, 1997

Signed this 16th day of March, 1992.

Harold F. Reheis

Director,
Environmental Protection Division

EPD 2.21-1

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning effective date and lasting through February 28, 1997, the permittee is authorized to discharge from outfall(s) serial number(s) 01 - Detention Pond (I Pond) and 01D - I Pond Bottom Drain; Discharges to Berry Creek.

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

Effluent Characteristic (Specify Units)	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/1)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency(2)	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Antimony	-	-	-	-	1/Year	Grab	Final Discharge*
Zinc	-	-	-	-	1/Year	Grab	Final Discharge*
Total Residual Chlorine (TRC)	-	-	-	-	3/Day(1)	Grab	Final Discharge*
Selenium	-	-	-	.005	1/Quarter	Grab	Final Discharge*
Arsenic	-	-	-	.00016	1/Quarter	Grab	Final Discharge*
1, 1 - Dichloroethylene	-	-	-	-	1/Quarter	Grab	Final Discharge*
Methylene Chloride	-	-	-	-	1/Year	Grab	Final Discharge*

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per month by a grab sample at the final discharge to Berry Creek or at the bottom drain when discharging.

*Final discharge or bottom drain when discharging.

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

(1) Monitoring and reporting of TRC is required only during continuous service water chlorination for controlling asiatic clams.

(2) See Special Requirement 14., Part III. B.

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

1.A. During the period beginning April 1, 1994 and lasting through February 28, 1997, the permittee is authorized to discharge from outfall(s) serial number(s) 01E - Combined discharge of outfalls 01A, 01B, 06 and 07 to the Ocmulgee River.

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based (mg/1)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow (MGD)	-	-	-	-	-	-	-
Total Residual Chlorine (TRC)		-	-	-	3/Day(1)	Grab	Final Outfall
Selenium	-	-	-	.089	1/Year	Grab	Final Outfall
1, 1 - Dichloroethylene	-	-	-	-	1/Year	Grab	Final Outfall
Antimony	-	-	-	-	1/Year	Grab	Final Outfall
Zinc	-	-	-	-	1/Year	Grab	Final Outfall
Methylene Chloride	-	-	-	-	1/Year	Grab	Final Outfall
Arsenic	-	-	-	0.0134	1/Quarter	Grab	Final Outfall

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per month by grab sample at the final discharge to the Ocmulgee River.

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

(1) Monitoring and reporting of TRC is required only during continuous service water chlorination for controlling asiatic clams.

2. During the period beginning effective date and lasting through February 28, 1997 the permittee is authorized to discharge from outfall(s) serial number(s) 01A - Cooling Tower Blowdown for Units 1, 2, 3 and 4.

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

Effluent Characteristic	Discharge Limitations			Monitoring Requirements		
	Mass Based	Concentration Based (mg/l)				
	Daily Max.	Avg.	Inst. Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-
Free available Chlorine (FAC)	-	0.2	0.5	1/Week	Multiple Grabs	Blowdown Line
Total Residual Chlorine (TRC)	-	-	-	1/Week	Multiple Grabs	Blowdown Line
TRC Time (minutes/day/unit)	120	-	-	1/Week	Multiple Grabs	Blowdown Line
Total Residual Chlorine (TRC)	-	-	-	1/Week	Multiple Grabs	Service Water
Total Chromium	0.2	-	-	1/Quarter	Grab	Blowdown Line
Total Zinc	1.0	-	-	1/Quarter	Grab	Blowdown Line

Multiple grab samples are to be collected on 15 minute intervals during periods of FAC and TRC discharges attributable to cooling tower/condenser chlorination. Intervals are to be 3/day during FAC and TRC discharges attributable to continuous service water chlorination. Samples are to be taken before each individual cooling tower blowdown combines with waste streams from other sources.

All numerical discharge limitations and monitoring requirements apply to the individual cooling tower blowdown from each generating unit. The limitations of 0.2/0.5 mg/l of FAC apply to FAC discharge attributable to cooling tower/condenser chlorination (i.e. effluent concentration of FAC above that due to continuous service water system chlorination). Time of discharge of TRC attributable to cooling tower/condenser chlorination is limited to 2 hours/day/unit. Simultaneous discharge of TRC attributable to cooling tower/condenser chlorination is prohibited. Also, see Part III, B.4., 5., and 6., beginning on Page 25.

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3. During the period beginning effective date and lasting through February 28, 1997, the permittee is authorized to discharge from outfall(s) serial number(s) 01B - Ash Transport Water (includes 02H Wastewater Basin Low Volume Waste).

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	kg/day(lbs/day)		Other Units(Specify) (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location(1)
Flow-m^3Day (MGD)	-	-	-	-	-	-	
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Bleedoff
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	Bleedoff

(1) Samples are to be taken at the ash transport bleedoff line prior to combination with any other wastewater stream.

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4. During the period beginning effective date and lasting through February 28, 1997, the permittee is authorized to discharge from outfall(s) serial number(s) 02J - Settling Pond Emergency Overflow to Lake Juliette (Ash Transport Water).

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	kg/day(lbs/day)		Other Units(Specify) (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency(1)	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	Overflow

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 2/month by grab sampling.(1)

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

(1) Monitoring for TSS, Oil and Grease, and pH is required only when an overflow is occurring.

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5. During the period beginning effective date and lasting through February 28, 1997, the permittee is authorized to discharge from outfall(s) serial number(s) 02K - Units 1 and 2 Wastewater Basin Emergency Overflow to Lake Juliette (Low Volume Wastes).

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	kg/day(lbs/day)		Other Units(Specify) (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency(1)	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	Overflow

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 2/month by grab sampling.(1)

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

(1) Monitoring for TSS, Oil and Grease, and pH is required only when an overflow is occurring.

6. During the period beginning effective date and lasting through February 28, 1997, the permittee is authorized to discharge from outfall(s) serial number(s) 02L - Units 3 and 4 wastewater Basin Emergency Overflow to Lake Juliette (Low Volume Wastes).

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

Effluent Characteristic	Monitored Limitations				Monitoring Requirements		
	kg/day (lbs/day)		Other Units (Specify) (mg/l)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency(1)	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil and Grease (O & G)	-	-	15	20	2/Month	Grab	Overflow

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 2/month by grab sampling.(1)

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

(1) Monitoring for TSS, Oil and Grease, and pH is required only when an overflow is occurring.

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7. During the period beginning effective date and lasting through February 28, 1997, the permittee is authorized to discharge from outfall(s) serial number(s) 03 - Service Water Final Discharge to Lake Juliette.

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

Effluent Characteristic	Discharge Limitations				Monitoring Requirements		
	kg/day(lbs/day)		Other Units(Specify)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Sample Frequency	Sample Type	Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Temperature	-	-	-	-	1/Week	Grab	(1)
Total Residual Chlorine (TRC)	-	-	-	-	1/Week	Grab	Final Discharge

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

(1) Temperature will be monitored and reported for the plant intake and the final discharge. The difference ("ΔT") between the intake and discharge temperature shall be calculated and entered on the monitoring report.

8. During the period beginning effective date and lasting through February 28, 1997, the permittee is authorized to discharge from outfall(s) serial number(s) 04 and 05 - Units 1 and 2 Cooling Tower Basin Overflows/Basin Cleaning Wastes to Lake Juliette.

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

Effluent Characteristic	Discharge Limitations Units (Specify) (mg/1)				Monitoring Requirements		
	Avg.	Inst.Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil & Grease (O & G)	-	-	15	20	2/Month	Grab	Overflow
Free Available Chlorine (FAC)	0.2	0.5	-	-	1/Week Multiple	Grabs	Overflow
Total Residual Chlorine (TRC)	-	-	-	-	1/Week Multiple	Grabs	Overflow
TRC Time (minutes/day/unit)	-	-	-	120	1/Week Multiple	Grabs	Overflow
Total Chromium	-	-	-	0.2	1/Quarter	Grab	Overflow
Total Zinc	-	-	-	1.0	1/Quarter	Grab	Overflow

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 2/month by grab sampling. There shall be no discharge of floating solids or visible foam in other than trace amounts.

TSS, O & G and pH are required for basin cleaning waste discharges. FAC, TRC, TRC Time, chromium, zinc, and pH are required for cooling tower overflow discharges. Stop log leakage is <u>not</u> reportable, but its flow and effluent characteristics should be discussed in the bi-annual flow characterization study.

Multiple grab samples are to be collected on 15 minute intervals during periods of FAC and TRC discharges attributable to cooling tower/condenser chlorination. Intervals are to be 3/day during FAC and TRC discharges attributable to continuous service water chlorination. Samples are to be taken before each individual cooling tower overflow combines with waste streams from other sources.

All numerical discharge limitations and monitoring requirements apply to the individual cooling tower overflow from each generating unit. The limitations of 0.2/0.5 mg/1 of FAC apply to FAC discharge attributable to cooling tower/condenser chlorination (i.e. effluent concentration of FAC above that due to continuous service water system chlorination). Time of discharge of TRC attributable to cooling tower/condenser chlorination is limited to 2 hours/day/unit. Simultaneous discharge of TRC attributable to cooling tower/condenser chlorination is prohibited.

9. During the period beginning effective date and lasting through February 28, 1997, the permittee is authorized to discharge from outfall(s) serial number(s) 06 and 07 - Units 3 and 4 Cooling Tower Basin Overflows/Basin Cleaning Wastes to Detention Pond (I Pond), or through Outfall 01E to the Ocmulgee River.

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

Effluent Characteristic	Discharge Limitations Units (Specify) (mg/1)				Monitoring Requirements		
	Avg.	Inst.Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow-m^3Day (MGD)	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	-	-	30	100	2/Month	Grab	Overflow
Oil & Grease (O & G)	-	-	15	20	2/Month	Grab	Overflow
Free Available Chlorine (FAC)	0.2	0.5	-	-	1/Week Multiple	Grabs	Overflow
Total Residual Chlorine (TRC)	-	-	-	-	1/Week Multiple	Grabs	Overflow
TRC Time (minutes/day/unit)	-	-	-	120	1/Week Multiple	Grabs	Overflow
Total Chromium	-	-	-	0.2	1/Quarter	Grab	Overflow
Total Zinc	-	-	-	1.0	1/Quarter	Grab	Overflow

TSS, O & G and pH are required for basin cleaning waste discharges. FAC, TRC, TRC Time, chromium, zinc, and pH are required for cooling tower overflow discharges.

Multiple grab samples are to be collected on 15 minute intervals during periods of FAC and TRC discharges attributable to cooling tower/condenser chlorination. Intervals are to be 3/day during FAC and TRC discharges attributable to continuous service water chlorination. Samples are to be taken before each individual cooling tower overflow combines with waste streams from other sources.

All numerical discharge limitations and monitoring requirements apply to the individual cooling tower overflow from each generating unit. The limitations of 0.2/0.5 mg/l of FAC apply to FAC discharge attributable to cooling tower/condenser chlorination (i.e. effluent concentration of FAC above that due to continuous service water system chlorination). Time of discharge of TRC attributable to cooling tower/condenser chlorination is limited to 2 hours/day/unit. Simultaneous discharge of TRC attributable to cooling tower/condenser chlorination is prohibited.

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10. During the period beginning effective date and lasting through February 28, 1997, the permittee is authorized to discharge from outfall(s) serial number(s) 08, 09A, 09B, 09C - Car wash, pump seal waters discharging to Lake Juliette and the Ocmulgee and intake screen backwash. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic (Specify Units)	Discharge Limitations				Monitoring Requirements		
	Mass Based		Concentration Based				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow	-	-	-	-	-	-	-

Discharge from these outfalls shall not violate water quality standards in the receiving streams. Monitoring shall be performed when requested by the Division.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored when requested by the Division.

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

B. SCHEDULE OF COMPLIANCE

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

   Effluent limitations and monitoring requirements are effective immediately upon issuance of this permit.

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. In the latter case, the notice shall include the cause of 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 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 who has the authority to act for or on behalf 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
Industrial Wastewater Program
205 Butler Street, S.E., Floyd Towers East
Suite 1070
Atlanta, Georgia 30334

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 concentration 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 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, recordings from continuous monitoring 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 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 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 from 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.

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.

B. 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 and Best Available Technology Economically Achievable

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 pollutants, toxic and otherwise,

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.

PART III

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 with requirements listed below. 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 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. Neither free available chlorine (FAC) nor total residual chlorine (TRC) 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 Director that the units in a particular location cannot operate at or below this level of chlorination. The permittee has demonstrated the need to continuously chlorinate the service water system to control asiatic clams. The present intent is to chlorinate the service water periodically from April through October, five days per month for 24 hours per day at an initial level of 1.0 mg/l FAC. Other months, longer durations, and lower FAC levels may be used. This chlorination practice will result occasionally in the discharge of FAC or TRC from each cooling tower simultaneously and for more than 2 hours per day. The permittee must reduce the chlorine discharge if possible and has performed a study to determine the minimum practicable chlorine levels, frequencies, and duration of continuous chlorination for the service water system to adequately control asiatic clams. A plan of study with a schedule of activities has been submitted to the EPD September 11, 1989 and approved for implementation.

5. In accordance with 40 CFR 423.11(k), the free available chlorine (FAC) average means the average over any individual chlorine release period of 2 hours per day per unit. The FAC 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 FAC and 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.

6. In accordance with 40 CFR 423.13(d)(3), the permittee shall certify every two years in the flow characterization study that no priority pollutant other than chromium or zinc is above detectable limits in outfalls 01A, 04, 05, 06, and 07 (cooling tower blowdowns or overflows).

7. In the event that waste streams from 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.

8. 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 Water Pollution Control Act.

9. The permittee shall determine the flow of the various waste streams and submit this determination to the Director once every two years.

10. All sewage treatment plants (STP) must be properly operated and maintained. This applies to 02A Main STP, 02B Coal Handling STP, and 02C Unit 1 Temporary STP.

11. Every two years, the permittee shall review the water treatment chemicals other than chlorine discharged to State waters. This includes, but is not limited to microbiocides, corrosion inhibitors, and dispersants. These chemicals shall be used and disposed of in accordance with the manufacturers' instructions unless other requirements are imposed by EPD.

    As part of the flow characterization study of Item 13. below, the permittee shall submit to EPD a current inventory of all chemicals discharged during the previous twenty-four months.

12. Forms other than Form WQ 1.45 may be used for the quarterly Operation Monitoring Report upon approval by the EPD.

13. Summary of flow characterization study requirements from preceding pages:

    a. Outfalls 04, and 05 stop log leakage flow and effluent characteristics.

    b. Metal cleaning waste treatment and disposal procedures.

    c. Flow determination of various waste streams.

    d. Water treatment chemical inventory

    e. Cooling tower blowdown priority pollutant certification per 40 CFR 423.13(d)(3).

14. After March 31, 1994, monitoring for those parameters listed in Part I.A.1 for outfalls 01 and 01D (I-pond and I-pond bottom drain) shall not be required, except during periods of emergency bypass from outfall 01E to the I-pond. Each of those parameters listed in Part I.A.1, except TRC, shall be monitored once per day for every day of emergency bypass and once per day for seven days following cessation of the emergency bypass. TRC shall be monitored three times per day of emergency bypass and three times per day for seven days following cessation of the emergency bypass for those days on which continuous service water chlorination occurs. The permittee shall submit notice of emergency bypass from outfall 01E as per the requirements of Part II.A.5. The results of emergency bypass monitoring may be submitted as per the routine reporting requirements of Part I.C.2.

15. If the results for a given sample are such that a parameter is not detected at or above the method detection limit, a value of zero will be reported for that sample and the detection limit will also be reported. Such sample shall be deemed to be in compliance with the permit limit. The following pollutants shall be analyzed to the method detection limit: Antimony - not to exceed 50 µg/l, Zinc - not to exceed 20 µg/l, Arsenic - not to exceed 30 µg/l, Selenium - not to exceed 40 µg/l, Methylene Chloride - not to exceed 10 µg/l, 1,1 Dichloroethylene - not to exceed 2.0 µg/l. The permit shall be reopened if technology advances to improve the method detection limit.

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.17. above.

Georgia Department of Natural Resources
205 Butler Street, S.E., East Floyd Tower, Atlanta, Georgia 30334
Joe D. Tanner, Commissioner
Harold F. Reheis, Director
Environmental Protection Division

February 5, 1992

Mr. C. M. Hobson
Manager, Licensing & Compliance
Georgia Power Company
P. O. Box 4545
Atlanta, Georgia 30302

RE: NPDES Permit No. GA0035564
Plant Scherer

Dear Mr. Hobson:

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 publication in the largest newspaper of general circulation in Juliette, Georgia or by posting the notice at the entrance of the County courthouse. Within ten days of receipt of this letter, the Public Notice should either be published for one day or posted and remain for a period of thirty days. At the end of the thirty-day public notice period, the EPD will make a determination on issuance of the NPDES Permit. The cost of circulating the Public Notice is the responsibility of the Georgia Power Company. 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.

Concurrent with issuance of the NPDES Permit, the Georgia EPD will execute an Administrative Order which will address the issue of compliance with the toxic metal limitations of the permit for outfall 01/01D.

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 Mr. Dave Yardumian at 404/656-4887.

Sincerely,

Lawrence W. Hedges

Lawrence W. Hedges
Program Manager
Industrial Wastewater Program

LWH:dyb
Attachment
cc: Mr. James Patrick (w/attachment)
U.S. Environmental Protection Agency, Region IV

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, P. O. Box 4545, Atlanta, Georgia 30302, NPDES Permit No. GA0035564, for its Plant Scherer facility located on Highway 23 near Juliette. Four existing discharges enter Rum Creek, Berry Creek and the Ocmulgee River in the Upper Ocmulgee River Basin. An alternative outfall location for existing wastewaters is proposed to the Ocmulgee River.

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 25¢ per page will be assessed. The permit application, draft permit, comments received, and other information are available for review at 205 Butler Street, S.E., Floyd Towers East, Room 1070, Atlanta, Georgia, between the hours of 9:00 a.m. and 4:00 p.m., Monday through Friday.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

MAY 0 8 1992

REF: 4WM-WPEB

Mr. David M. Word, P.E., Chief
Water Protection Branch
Environmental Protection Division
Georgia Department of Natural Resources
Floyd Towers East - Room 1058
205 Butler Street, S.E.
Atlanta, Georgia 30334

RE: NPDES Overview

Dear Mr. Word:

In accordance with the EPA/EPD MOA, we have completed review of the following final permit(s) and have no objections to the permit conditions.

NPDES Number	Facility Name
GA0035564	Georgia Power Company
GA0001678	Engelhard Corporation
GA0047741	Colonial Pipe Company

If you have any questions, please call Mr. Gregory Beatty at 347-3379.

Sincerely yours,

James H. Scarbrough, P.E., Chief
Water Permits and Enforcement Branch
Water Management Division

Printed on Recycled Paper

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

MAR 19 1992

REF: 4WM-WPEB

Mr. David M. Word, P.E., Chief
Water Protection Branch
Environmental Protection Division
Georgia Department of Natural Resources
Floyd Towers East - Room 1058
205 Butler Street, S.E.
Atlanta, Georgia 30334

RE: NPDES Overview

Dear Mr. Word:

In accordance with the EPA/EPD MOA, we have completed review of the following draft permit(s) and have no objections to the proposed permit conditions.

NPDES Number	Facility Name
GA0003484	U.S. Army - Ft. Gordon
GA0032751	Criterion Mills, Inc.
GA0035564	Georgia Power Company

We request that we be afforded an additional review opportunity only if significant changes are made to the permit(s) prior to issuance, or if significant objections to the permit(s) are received. Otherwise, please send us one copy of the final permit(s) when issued.

If you have any questions, please call Mr. Gregory Beatty at 347-3379.

Sincerely yours,

James H. Scarbrough, P.E., Chief
Water Permits and Enforcement Branch
Water Management Division

Printed on Recycled Paper

Georgia Department of Natural Resources
205 Butler Street, S.E., East Floyd Tower, Atlanta, Georgia 30334
Joe D. Tanner, Commissioner
Harold F. Reheis, Director
Environmental Protection Division

March 16, 1992

Mr. S.D. Holder
Manager, Environmental Affairs
Georgia Power Company
P. O. Box 4545
Atlanta, Georgia 30302

Re: NPDES Permit No. GA 0035564
Administrative Order EPD-WQ-1855
Plant Scherer, Monroe County

Dear Mr. Holder:

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. In addition to the permit, we are issuing Administrative Order EPD-WQ-1855 which provides a schedule for compliance by April 1, 1994 with the new facility discharge limitations to Berry Creek.

In regard to your comments of March 13,1992 concerning the proposed permit and order, we have changed paragraph 1. on page 2. of the order as per your request. The remainder of the permit and order have not been changed from that proposed March 6, 1992.

Please be advised that on and after the effective dates indicated in the attached NPDES permit and administrative order, the permittee must comply with all the terms, conditions and limitations of both the permit and the order.

Sincerely,

Harold F. Reheis

Harold F. Reheis
Director

HFR:bk
Attachment

cc: [redacted] Patrick (w/attachment)
U. S. Environmental Protection Agency

ENVIRONMENTAL PROTECTION DIVISION
DEPARTMENT OF NATURAL RESOURCES
STATE OF GEORGIA

IN RE:	Georgia Power Company	#
	Plant Scherer	# Order No. EPD-WQ-1855
	Juliette, Monroe County, Georgia	#

ADMINISTRATIVE ORDER

WHEREAS, Georgia Power Company (hereinafter the "Company") operates the Plant Scherer electricity generating facility (hereinafter the "Facility") in Juliette, Monroe County, Georgia; and

WHEREAS, on April 6, 1987 the Director (hereinafter the "Director") of the Georgia Environmental Protection Division (hereinafter the "Division") issued a National Pollutant Discharge Elimination System Permit No. GA0035564 (hereinafter the "NPDES Permit") to the Company, with an expiration of March 16, 1992 which authorized the Company to discharge pollutants from the Facility in accordance with the conditions and effluent limitations contained therein; and

WHEREAS, on April 23, 1990 and with revisions January 23, 1991, the Division promulgated new rules and regulations (hereinafter the "new rules") for control of toxic pollutants; and

WHEREAS, the new rules require more stringent control of selenium and arsenic than required in the NPDES Permit issued April 6, 1987; and

WHEREAS, on September 13, 1991 with supplemental data of February 4 and February 24, 1992, the Company submitted an application for reissuance of the NPDES Permit; and

WHEREAS, the application data submitted by the Company indicates that facility effluent concentrations of selenium and arsenic will be in excess of those levels required by the new rules and the requirements of the proposed reissuance of the NPDES Permit; and

WHEREAS, by letter of February 4, 1992 to the Division, the Company has indicated that compliance with the new rules and the NPDES Permit proposed for reissuance will require at least 24 months for installation of an alternate outfall; and

WHEREAS, the Director has considered the Company's statement of February 4, 1992 and has determined that a schedule of compliance is appropriate; and

WHEREAS, O.C.G.A. § 12-5-23(b)(12) of the Georgia Water Quality Control Act, as amended (hereinafter the "State Act") authorizes the Director to issue an Order directing a wastewater discharger to secure within the time specified therein such operating results as are reasonable and practicable of attainment toward the control, abatement, and prevention of pollution of waters of the State and the preservation of the necessary quality for the reasonable use thereof;

NOW, THEREFORE, the Director hereby ORDERS the Company to comply with the following:

1. The Company shall complete preliminary design of the alternate outfall by no later than August 28, 1992.
2. The Company shall complete the final design of the alternate outfall by no later than April 23, 1993.

3. The Company shall complete construction of the alternate outfall and begin operation of the alternate outfall no later than April 1, 1994.

4. The Company shall provide a report to the Division summarizing progress with the requirements of this Order at the end of every calendar quarter beginning with the second quarter 1992 and ending with the first quarter 1994.

5. The Company shall confirm completion of the requirements of paragraphs 1, 2, and 3 of this Order by written report to the Division within 14 days after completion of each requirement.

6. Compliance by the Company with the daily maximum limitations for arsenic and selenium of page 2 of the NPDES permit, as reissued, is hereby waived until April 1, 1994.

The Company is hereby informed of the right to be represented by legal counsel; to petition for a hearing on the ORDER within thirty (30) days from the date of issuance of same; and that such order shall become final unless a petition for hearing is filed within thirty (30) days from the date of issuance of same.

The original of any petition for hearing, response or other pleading in this matter shall be filed with the Senior Administrative Law Judge for the Board of Natural Resources, to wit:

The Honorable Mark Dickerson
Administrative Law Judge
Department of Natural Resources
Suite 1254 East, 205 Butler Street, S.E.
Atlanta, Georgia 30334

One copy of any such petition for hearing, response or other pleading in this matter shall be filed with the Director of EPD, to wit:

Harold F. Reheis, Director
Environmental Protection Division
Department of Natural Resources
Suite 1152 East, 205 Butler Street, S.E.
Atlanta, Georgia 30334

and a separate copy served on his counsel of record, to wit:

The Honorable Robert S. Bomar
Senior Assistant Attorney General
Room 108, State Judicial Building
Atlanta, Georgia 30334

It is so ORDERED this 16th day of March, 1992.

Harold F. Reheis
Director