

Georgia Power Company
333 Piedmont Avenue
Atlanta, Georgia 30308
Telephone 404 526-9195

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40 Inverness Center Parkway
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W. G. Hairston, III
Senior Vice President
Nuclear Operations

The Insulated Batching System

HL-2121
003150

March 25, 1992

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
ANNUAL ENVIRONMENTAL SURVEILLANCE REPORT

Gentlemen:

In accordance with the Plant Hatch Units 1 and 2 Environmental Technical Specifications, (Appendix B to the Operating Licenses), Section 5.6.1, Georgia Power Company is submitting the enclosed Annual Environmental Surveillance Report for 1991.

If you have any questions in this regard, please contact this office at any time.

Sincerely,



W. G. Hairston, III

SRM/cr

Enclosures: Annual Environmental Surveillance Report

cc: (See next page.)

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U.S. Nuclear Regulatory Commission

March 25, 1992

Page Two

cc: Georgia Power Company

Mr. H. L. Sumner, General Manager - Nuclear Plant

Mr. C. M. Hobson, Manager - Environmental Affairs

NORMS

U.S. Nuclear Regulatory Commission, Washington, D.C.

Mr. K. Jabbour, Licensing Project Manager - Hatch

U.S. Nuclear Regulatory Commission, Region II

Mr. S. D. Ebner, Regional Administrator

Mr. L. D. Wert, Senior Resident Inspector - Hatch

ENCLOSURE

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
ANNUAL ENVIRONMENTAL SURVEILLANCE REPORT

1991

Specification

In accordance with the Edwin I. Hatch Nuclear Plant Technical Specifications, Appendix B, Section 5.6.1, this report is submitted summarizing the environmental activities for Units 1 and 2 of the Edwin I. Hatch Nuclear Plant for the period January 1, 1991 through December 31, 1991.

Reporting Requirements

A. Summaries, Analyses, and Interpretations of the Environmental Monitoring Activities Results for the Report Period

No nonradiological environmental monitoring activities were performed at Plant Hatch during the reporting period beyond those performed in accordance with NPDES Permit No. GA0004120. Monitoring activities performed in accordance with NPDES Permit No. GA0004120 are referenced in Section H.

B. Comparison With Preoperational Studies, With Operational Controls, and With Previous Monitoring Reports

Comparisons with preoperational studies, operational controls, and previous monitoring reports were not necessary because no nonradiological monitoring programs were conducted during the monitoring period beyond those performed in accordance with NPDES Permit No. GA0004120.

C. An Assessment of Observed Impacts of Plant Operation on the Environment

No significant environmental impacts were associated with plant operation during the reporting period.

D. Environmental Technical Specifications (ETS) Noncompliances and Corrective Actions Taken

No instances of ETS noncompliance occurred during the reporting period.

E. Changes to Federal and State Permits or Certificates

No changes to any permits or certificates described in section 5.6.3 of the Environmental Technical Specification occurred in 1991.

ENCLOSURE (Continued)

ANNUAL ENVIRONMENTAL SURVEILLANCE REPORT

1991

F. Changes in Station Design or Operation That Could Involve an Environmental Impact or Change in the Findings of the Final Environmental Statement

In 1991 no changes were made in station design or operation which presented significant environmental impact or resulted in a change in the findings of the Final Environmental Statement.

G. Changes in the Environmental Technical Specifications

One amendment was issued to the Environmental Technical Specifications on each unit in 1991. Amendment 116 on Unit 1 and Amendment 175 on Unit 2 reflected organizational and title changes.

H. Copies of All Reports Regarding Station Discharges Made in Accordance with NPDES Permit No. GA0004120

Enclosure 1 contains copies of reports submitted to the State of Georgia Department of Natural Resources - Environmental Protection Division related to events which resulted in exceedance of Plant Hatch NPDES Permit limitations on August 19, 1991, November 7, 1991, and December 30, 1991, respectively. There were no observed impacts to the environment as a result of the events. The NRC was notified of each event in accordance with the provisions of Section 4.3 of the ETS (references 1, 2 and 3).

Copies of the 1991 quarterly NPDES Operational Monitoring Reports and the 1991 Flow Monitoring and Characterization Study are included as Enclosures 2 and 3.

References:

- 1) Letter HL-1789 dated August 26, 1991
J. T. Beckham to U.S. Nuclear Regulatory Commission,
Subject: NPDES Permit Noncompliance
- 2) Letter HL-1925 dated November 15, 1991
J. T. Beckham to U.S. Nuclear Regulatory Commission,
Subject: NPDES Permit Noncompliance
- 3) Letter HL-2002 dated January 3, 1992
J. T. Beckham to U.S. Nuclear Regulatory Commission,
Subject: NPDES Permit Noncompliance

ENCLOSURE 1
1991 NPDES REPORTS

Georgia Electric Company
100 Peachtree Street
Atlanta, Georgia 30303
Telephone 464-2600

Mr. C. M. Hobson
P.O. Box 10000
Atlanta, Georgia 30302



Georgia Power

Chris M. Hobson
Manager
Licensing and Compliance

August 22, 1991

PLANT HATCH
NPDES Permit No. GA 0004120

Mr. David M. Word
Georgia EPD
205 Butler Street, SE
Room 1056
Atlanta, Georgia 30334

Dear Mr. Word:

Attached is a report of an event which has been discovered at our Plant Hatch. This report is being submitted in compliance with the provisions of Part II.A.2. of the above reference NPDES permit. The required telephone (24 hour) notification was made to Mr. Lawrence W. Hedges on August 20, 1991.

Please inform me of your concurrence with our proposed interim chlorination program as soon as possible. If you have any questions or comments, please advise.

Yours very truly,


C. M. Hobson

GNG:kd
Attachment

cc: Mr. Lawrence W. Hedges, Program Manager
Mr. Larry P. Kloet, Environmental Engineer

bc: J. T. Beckham (All With Attachments)
K. L. Sumner
W. C. Carr
K. W. McCracken
POW 07521-08-00

PLANT E. I. HATCH
NPDES PERMIT NO. GA0004120

Description of Event

On August 19, 1991, the Plant Hatch Unit 1 cooling tower blowdown valve (1N71-F200) was determined to have been designed with an inherent leak rate allowing approximately 1000 gpm continuous flow through the valve when in the closed position. This configuration is attributed to the original system design which provided continuous blowdown from the circulating water system. Plant Hatch procedures for chlorinating the circulating water system require the blowdown valve to be closed during periods of chlorination. The discovery of this design configuration indicates that continuous blowdown has occurred during plant operation, including periods of circulating water system chlorination. As a result, not all of the NPDES Permit requirements for monitoring during periods of chlorination have been satisfied for Unit 1. Specifically, samples were not taken on the cooling tower blowdown line prior to mixing with other waste streams. This event is not applicable to Unit 2.

The discharge from the referenced valve mixes with other effluent water streams. The combined stream is routed to the Altamaha River via the plant discharge structure. Monitoring conducted routinely at the discharge structure, including periods of circulating water system chlorination, has not indicated the presence of chlorine residuals in the final discharge stream. The procedure used at Plant Hatch for performing circulating water system chlorination also has ensured that chlorine levels in the system are non-detectable prior to establishing normal system operation upon completion of the chlorination. Based on this data, no adverse environmental impact is judged to have occurred due to the periods of unmonitored chlorine discharge.

Cause of Event

The cause of this event is apparently an oversight in the original design configuration for the blowdown system relative to NPDES Permit requirements. The original system design was, in part, intended to provide continuous blowdown as a dilution mechanism for continuous releases from the Unit 1 liquid radwaste system and to maintain cycles of concentration in the circulating water system. Releases from the liquid radwaste actually are performed on a batch basis, but the impact of the blowdown valve design was not recognized relative to NPDES requirements.

Period of Event

The design of the blowdown valve has allowed continuous discharge from the Unit 1 circulating water system since initial operation, excluding outage periods when the system was not operational.

On Friday, August 16, 1991, at approximately 1500 hours EDT, Plant Hatch personnel identified the potentially adverse valve design impact on the NPDES permit monitoring requirements. Chlorination of the Unit 1 circulating water system was immediately suspended and an investigation into the status of the valve was initiated. No additional chlorination has occurred to date.

Actions Taken to Reduce, Eliminate, and Prevent Recurrence

As stated previously, chlorination of the Unit 1 circulating water system was suspended upon identification of the suspected valve design. The valve design impact on NPDES monitoring requirements was confirmed on August 19, 1991, at approximately 1600 hours EDT. Georgia Power Company Environmental Affairs was immediately notified upon confirmation of the valve design. On August 19, 1991 at 1300 hours EDT, Environmental Affairs notified Mr. Lawrence W. Hedges, State of Georgia Environmental Protection Division (EPD), of the event. Mr. Hedges is the Program Manager for the EPD Industrial Wastewater Program.

Plant Hatch Unit 1 is scheduled for a refueling outage to begin on September 18, 1991. The Unit 1 cooling tower blowdown valve (1N71-F200) will be replaced during the outage with a valve designed to support full closure. This permanent corrective action will prevent recurrence of this event.

As indicated to Mr. Hedges on August 20, 1991, it may be necessary to resume some form of chlorination in the Unit 1 circulating water system prior to the September 18, 1991, outage date to prevent severe biofouling. The condition of the Unit 1 circulating water system will be closely monitored during the period prior to the outage and action will be taken to resume chlorination only if necessary. In the event conditions in the Unit 1 circulating water system require resumption of chlorination prior to the scheduled outage, the following mechanism is proposed to ensure compliance with the provisions of the Plant Hatch NPDES Permit:

1. A temporary dechlorination system will be installed on the cooling tower blowdown line and operated to ensure complete removal of all chlorine residual contained in the approximately 1000 gpm leakage flow passing through the blowdown valve. The dechlorination system will utilize an appropriate chlorine reducing agent (sodium bisulfite - Buckman Labs EULAB 9602) which will be fed immediately downstream of the blowdown valve.
2. Chlorine residuals (FAC and TRC) will be monitored in the circulating water flume at a representative point to determine the concentration present in the blowdown line.
3. The feed rate of the dechlorination system will be set to provide complete neutralization of chlorine residuals in the

blowdown line based on mass balance. An appropriate overfeed of dechlorination chemical will be provided as a contingency.

4. Due to system design, a representative monitoring point downstream of dechlorination prior to combination with other streams is not available. As such, total residual chlorine (TRC) will be monitored on thirty minute intervals at the discharge structure during the entire chlorination period.
5. If TRC is detected, additional monitoring for FAC will be initiated on 15 minute intervals and the feedrate will be adjusted on the dechlorination equipment, as necessary, to ensure complete neutralization.
6. All data and supporting information will be recorded and submitted for EPD review in the quarterly NPDES Operations Monitoring Report (OMR) for Plant Hatch.

SUMMARY

Based on the previous information, no adverse environmental impact is believed to have occurred due to the periods of unmonitored chlorine discharge. Plant Hatch also is taking appropriate action to preclude future releases of chlorine from the Unit 1 circulating water system.

The above information is submitted in accordance with the provisions of Part II A. 2. of the Plant Hatch NPDES Permit (No. GA0004120). It is understood that EPD will provide a response regarding the acceptability of the proposed contingency plan for chlorination discussed above upon receipt and review of this report.

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Telephone 404 526-6526

Mailing Address
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07-02-12-02



Georgia Power

the southern electric system

Chris M. Robson
Manager,
Licensing and Compliance

October 15, 1991

PLANT HATCH

NPDES Permit No. GA0004120
Proposed Consent Order

Mr. Lawrence W. Hedges,
Program Manager,
Industrial Wastewater Program
205 Butler Street, SE - Room 1070
Atlanta, Georgia 30334

Dear Mr. Hedges:

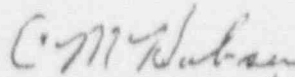
Attached is a Fact Sheet which further explains circumstances and operating conditions associated with the Plant Hatch Unit 1 cooling tower blowdown valve leakage. This information is being submitted in response to the letter and proposed Consent Order from Mr. H. F. Reheis, dated September 23, 1991 and in accordance with our discussions with you and Mr. David M. Word on October 4, 1991.

Also attached is a proposed revision of the Consent Order by FPD to resolve and settle alleged violations of Plant Hatch's NPDES permit. The revisions which are being proposed by Georgia Power Company include: 1) minor wording changes; 2) addition of a statement which acknowledges that no environmental damage occurred to the Altamaha River; 3) provisions for continued operation of Unit 1 in the event that the newly installed replacement valve should be faulty and; 4) proposes a reduced settlement in the amount of \$9,500 which is based on actual operations of Unit 1 as detailed in the Fact Sheet.

Georgia Power Company appreciates the opportunity to provide the Division with this additional information to be considered as mitigation in arriving at a fair and equitable settlement of this issue.

If you have questions or comments, please advise.

Yours very truly,


C. M. Hobson *LAH*

GNG:kd
Attachments

xc: Mr. David M. Word, Chief, Water Protection Branch
Mr. Larry P. Kloet, Environmental Engineer

bc:	D. H. Evans	All With Attachments
	J. T. Beckham	
	H. L. Sumner	
	W. C. Carr	
	K. A. Macfarlane	
	POW 07-02-12-00	
	POW 23-01-01-00	

FACT SHEET
E. I. HATCH NUCLEAR PLANT
RESPONSE TO PROPOSED CONSENT ORDER

Background

On September 23, 1991, GPC received a draft Consent Order from the State of Georgia EPD in response to an NPDES Permit noncompliance reported on August 20, 1991. The Consent Order alleged violations of the NPDES Permit terms for failure to monitor FAC and TRC discharges, exceedance of the 0.2/0.5 discharge limits for FAC and exceedance of the 120 minute time limit for discharge of TRC at the E. I. Hatch Nuclear Plant Unit 1 cooling tower blowdown. The order proposed a substantial monetary penalty (\$30,000) for the alleged violations.

Purpose

This Fact Sheet is provided for the record as documentation of the Georgia Power Company (GPC)/Southern Nuclear (SNC) position with regard to resolution of the September 23, 1991 Proposed Consent Order for E. I. Hatch Nuclear Plant NPDES Permit No. GA0004120. The following paragraphs provide information which supports reduction of the proposed fine to an amount which reflects the overall impact of the incident.

Supporting Information

Period of Event

It is understood that the period January 1, 1983 to August 19, 1991 was used by EPD to evaluate the period of noncompliance for the purpose of assigning the monetary penalty proposed in the Consent Order. January 1, 1983 approximates the effective date of the EPA Steam Electric Guidelines which were published in the Federal Register on November 19, 1982. As such, the penalty was assessed based on a period of 3149 days.

Review of the operating records for HNP Unit 1 for the referenced period indicates the unit was out of service due to outage activities for approximately 786 days. This represents a 25 percent reduction in the period of noncompliance used by EPD in assessing the proposed penalty which brings the period of non-compliance to 2363 days.

In addition to the above, the period of noncompliance should also be reduced based on the practice of alternate day chlorination. This represents an additional 50 percent reduction in the noncompliance period to a total of 1181 days. The 50 percent reduction is a conservative estimate. Based on actual chlorination data for Unit 1 during a 304 day period in 1990/1991, chlorination took place on 111 days. This data indicates that chlorination only occurs on approximately 37 percent of the available days.

The original \$ 30,000 proposed penalty was assessed based on an assumption that the alleged noncompliance occurred each day during the defined 1983 to 1991 period. The above information indicates that the initial assumption was incorrect and provides the basis for reducing the proposed penalty amount accordingly. Based on the above, the proposed penalty amount should have been \$11,250 instead of the original \$30,000.

Environmental Impact

The approximately 1000 gpm leakage flow from the Unit 1 cooling tower blowdown valve was mixed with other Unit 1 effluent streams prior to reaching a mixing box where the Unit 1 and Unit 2 discharge streams combine and are routed to the Altamaha River via the plant discharge structure. Based on a review of available dilution flows from Unit 1 and Unit 2 effluent streams and circulating water system chlorination information, the approximately 1000 gpm leakage flow from the blowdown valve would not result in discharge of detectable levels of residual chlorine to the river. Monitoring conducted routinely at the discharge structure, including periods of circulating water system chlorination has not indicated the presence of chlorine residuals in the final discharge stream. Based on the above information, it can be concluded that no adverse environmental impact resulted from the periods of unmonitored chlorine discharge.

Conclusions

The NPDES incident discussed above represents a situation in which a condition unknown to the permittee resulted in noncompliance with the administrative and technical terms of the NPDES Permit. The incident was self identified and reported by the permittee; no adverse environmental impact resulted from the incident. The configuration of the valve was not apparent and corrective action was taken immediately upon discovery of the valve design.

GPC/SNC believe that a consent order with a fine, which is commensurate with the severity of the incident, is acceptable. The fine proposed by EPD is excessive and should be reduced based on the above information.

ENVIRONMENTAL PROTECTION DIVISION
DEPARTMENT OF NATURAL RESOURCES
STATE OF GEORGIA

IN RE: GEORGIA POWER COMPANY)
PLANT HATCH)
BAXLEY, APPLING COUNTY) ORDER NO. EPD-WQ-
GEORGIA

CONSENT ORDER

WHEREAS, Georgia Power Company (hereinafter the "Company") presently owns and operates Plant Hatch, a steam electric power generation plant in Baxley, Appling County, Georgia; and

WHEREAS, the Director of the Georgia Environmental Protection Division (hereinafter the "Director") issued to the Company National Pollutant Discharge Elimination System Permit No. GA0004120 (hereinafter the "Permit") for Plant Hatch's wastewater discharge to the Altamaha River; and

WHEREAS, Part III A.1 of the Permit requires cooling tower blowdown to be monitored for free available chlorine (FAC) and total residual chlorine (TRC) at fifteen minute intervals on grab samples of the blowdown during discharges of FAC and TRC, and the blowdown is required to meet average and instantaneous maximum concentration limits for FAC; and

WHEREAS, FAC and TRC will be present in cooling water during periods of chlorinating the circulation water to the cooling towers; and

WHEREAS, the maximum time limit in the Permit for discharges of TRC is 120 minutes; and

WHEREAS, Plant Hatch's normal operating procedure is to draw the water level down below the overflows in the circulation flume and close the blowdown valve during periods of chlorination, and the blowdown valve is not reopened until the chlorination is completed and TRC is nondetectable in the water in the circulation flume; and

WHEREAS, chlorination of cooling towers is normally performed on an alternate day basis during summer and on a less frequent basis in the winter and cycles last approximately four hours; and

WHEREAS, on August 19, 1991, the Company determined that due to the design of the blowdown valve on the Plant Hatch Unit 1 cooling tower, the blowdown valve has a potential leakage rate of up to 1000 gallons per minute of cooling water while in the closed position; and

WHEREAS, the Director alleges that due to the recently discovered potential design leakage rate through the closed valve, the Company has failed to monitor FAC and TRC discharges caused by chlorination of the Plant Hatch Unit 1 cooling tower, as required in the Permit; and

WHEREAS, the Director alleges that violations of the permissible instantaneous maximum FAC limit of .5 mg/l, the average FAC limit of .2 mg/l, and 120 minute time limit for TRC discharges in blowdown are likely during each chlorination cycle of the Plant Hatch Unit 1 cooling towers since the issuance of the Permit in 1983, which incorporated guidelines for the Steam

Electric Power Point Source Category, 40 CFR 423, promulgated November 19, 1982; and

WHEREAS, the Company immediately undertook control measures to eliminate potential TRC discharges in the blowdown from the Plant Hatch Unit 1 during chlorination cycles, upon discovery of the potential valve design leakage, as evidenced in their August 22, 1991 letter to EPD; and

WHEREAS, no environmental damage to the Altamaha River has occurred as a result of the alleged violations; and

WHEREAS, O.C.G.A. §12-5-29(a) of the Georgia Water Quality Control Act (hereinafter the "State Act") makes it unlawful to use any of the waters of the State for the disposal of sewage, industrial wastes or other wastes, except in such a manner as to conform to and comply with the provisions of the Act and all rules, regulations, orders and permits established under the provision of the State Act; and

WHEREAS O.C.G.A. §12-5-52(a) of the State Act provides, inter alia, that any person violating any provision of the State Act or any permit condition or limitation established pursuant to the State Act or, negligently or intentionally, failing or refusing to comply with any final or emergency order of the Director as provided by the State Act, shall be liable to a civil penalty not to exceed \$50,000.00 per day for each day during which such violation continues; provided, however, that a separate and later incident creating a violation within a 12 month period shall be liable for a civil penalty not to exceed

\$100,000.00 per day for each day during which such violation continues; and

WHEREAS, the Director and the Company desire to resolve the matter of the alleged NPDES Permit violations associated with the alleged discharge of TRC and FAC in the Plant Hatch Unit 1 cooling tower blowdown; and

WHEREAS, the Director agrees that the terms of this Order fully resolve and settle the matter of any alleged violations specified above through the date of execution of this Order;

NOW, THEREFORE, the Director hereby ORDERS and the Company hereby AGREES to the following:

1. The Company shall pay to the State of Georgia the sum of Nine Thousand Five Hundred Dollars (\$9,500.00). This sum shall be forwarded to the office of the Director within thirty (30) calendar days from the date of issuance of this Order, and shall be considered solely as the negotiated consideration of a settlement agreement.
2. Following the scheduled shutdown of Plant Hatch Unit 1 on September 18, 1991, the Unit 1 cooling tower cooldown valve will be replaced with a valve designed to support full closure. This valve shall be operational prior to the restart of Unit 1.
3. As an interim measure until shutdown of Unit 1, the Company will conform to the following requirements:
 - a. A temporary dechlorination system will be installed on the Unit 1 cooling tower blowdown line and operated to

ensure complete removal of all chlorine residual contained in the approximately 1000 gallons per minute "leakage" flow.

- b. Chlorine residual, (both FAC and TRC), will be monitored in the circulating water flume at a representative point selected by the Company. Feed rate of the dechlorination system will be set to provide neutralization of chlorine residuals in the blowdown line based on mass balance and an appropriate factor of safety.
 - c. Total residual chlorine (TRC) will be monitored on 30 minute intervals at the discharge structure (Discharge 001) during the entire chlorination period. If TRC is detected, both FAC and TRC will be monitored on 15 minute intervals and the feed rate will be adjusted, as necessary, to ensure neutralization.
 - d. All data and supporting information will be submitted to EPD on the quarterly NPDES Operation Monitoring Report. The 120 minute time limit specified in the Permit for TRC and FAC discharges will be applicable to the Unit 1 combined discharge (Outfall 001).
- 4. The Company shall submit a statement specifying the type of valve utilized as a replacement part and verifying that replacement was made prior to restarting Unit 1.
 - 5. During operation of Unit 1 subsequent to replacement of the blowdown valve, should the Company determine that the

replacement valve installed pursuant to Paragraph 2 above is ineffective or faulty, the Company will comply with the interim measures set forth in Paragraph 3 above until the next scheduled shutdown, at which time the valve shall be replaced or repaired.

By agreement of the parties, this Order shall be considered final and effective immediately, and shall not be appealable, and the Company does hereby waive any hearing on the terms and conditions of same.

This Order is made by agreement and with the consent of the Director and the Company and the same shall not constitute a finding or adjudication of violation of any Federal or State laws, rules or regulations by the Company, nor does the Company, by its consent to this Order, admit any violation of law, rule or regulation or any liability to any third party or parties.

It is so ORDERED, CONSENTED, and AGREED to this _____
day of _____, 1991.

HAROLD F. REHEIS, Director
Environmental Protection Division
Department of Natural Resources
State of Georgia

GEORGIA POWER COMPANY

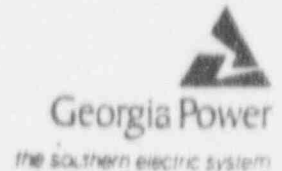
By: _____

Title: _____

Date: _____

Georgia Power Company
333 Piedmont Avenue
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Telephone 404 526-6526

Mailing Address
Post Office Box 4545
Atlanta, Georgia 30302



Chris M. Hobson
Manager,
Licensing and Compliance

November 12, 1991

PLANT HATCH

NPDES Permit No. GA0004120
Unit 2 Cooling Tower Blowdown Valve

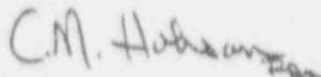
Mr. Lawrence W. Hedges
Program Manager,
Industrial Waste Water Program
205 Butler Street, SE - Room 1070
Atlanta, Georgia 30334

Dear Mr. Hedges:

Attached is a description of the Unit 2 Cooling Tower Blowdown Valve malfunction and unplanned release of chlorine to the Altamaha River which was previously reported to you on November 7, 1991. This report is submitted in accordance with Part II A.2. of the above referenced NPDES permit.

If you have questions or comments, please advise.

Yours very truly,


C. M. Hobson

GNG:kd
Attachment

xc: Mr. Larry P. Kloet, Environmental Engineer

Plant E. I. Hatch
NPDES Permit No. GA0004120

Description of Event

On Thursday November 7, 1991, at approximately 0800 EST, Plant Hatch began a normal chlorination cycle for the Unit 2 circulating water system. The cooling tower flume level had been previously lowered and sodium hypochlorite was injected into the system until approximately 0815 EST. After closing the valve on the sodium hypochlorite tank, Plant Hatch Chemistry personnel obtained a sample from the cooling tower basin and recorded a value of greater than 2 ppm Free Available Chlorine/Total Residual Chlorine (FAC/TRC). Chemistry personnel then proceeded to obtain a sample from the flume. At this time it was observed that the flume level had decreased significantly. Operations personnel investigated the situation and determined that the Unit 2 cooling tower blowdown valve was open. The Unit 2 control room was immediately notified, and the valve was manually closed locally.

As a result of the valve being open, not all of the NPDES Permit requirements for monitoring of the Unit 2 cooling tower blowdown line during periods of chlorination were satisfied. Samples are not required to be routinely taken from the cooling tower blowdown line; therefore, there were no samples taken from the line during the approximate 50 minute period of unplanned chlorine discharge.

The discharge from the blowdown valve was diluted with other effluent water streams prior to discharge to the Altamaha River. No adverse environmental impact was observed to have occurred as a result of the period of unmonitored chlorine discharge.

Cause of Event

The primary cause of the event is attributed to malfunction of the Unit 2 cooling tower blowdown valve torque switch. Failure to follow procedure contributed to the cause of the event. The Operations procedure requires the operator to observe the flume level when the blowdown valve is open and to observe the flume level for one hour following manipulation of the valve until the flume level stabilizes. In this case the operator returned to the control room for shift change without waiting the prescribed time of one hour. This resulted in the decrease in flume level remaining unobserved during the discharge to the river.

Prior to beginning the chlorination process the cooling tower blowdown valve had "red" and "green" position indicating lights illuminated. The normal indication for valve position is "red" for open and "green" for closed. A "red" and "green" indication reflects the valve being in an immediate position. The valve was confirmed to be in the closed position earlier in the shift with both lights on the panel illuminated. Though not required this confirmation was normally performed as a good practice and consisted of a verification that dilution flow from the valve was

zero as read in the radwaste control room. On the morning of November 7, 1991, the valve was returned to the closed position following operation of the valve to lower the flume level. At this time both indicating lights again were illuminated. The cooling tower blowdown valve torque switch malfunctioned such that the valve did not properly close. This failure to close was not properly identified due to the malfunction of limit switches which provide the open and closed valve indication in the control room. The torque switch senses valve closure and terminates valve movement. No additional verification of the valve position as previously described was conducted when both indicating lights were illuminated. The operator assumed the valve was closed and approved the initiation of circulating water system chlorination. However, the torque switch had malfunctioned and the valve remained in an intermediate position.

As a result of the torque switch malfunction and the failure to properly follow the procedure the valve remained open during the chlorination cycle.

Period of Event

The duration of the event was approximately 50 minutes. Chlorination of the Unit 2 circulating water system began at approximately 0800 EST and was terminated at 0815; the blowdown valve was secured at approximately 0850 EST.

Actions Taken to Reduce, Eliminate, and Prevent Recurrence

Upon discovery of the open condition, the blowdown valve was manually secured. Chlorination of the circulating water system was suspended pending investigation into the cause of the problem. No additional mitigative action was necessary. No adverse environmental impact to the Altamaha River was observed as a result of the incident.

Georgia Power Company Environmental Affairs was notified upon confirmation of details associated with the incident. Environmental Affairs notified Mr. Lawrence Kloet, State of Georgia Environmental Protection Division (EPD), of the incident at approximately 1415 EST. The Nuclear Regulatory Commission was subsequently notified.

The torque switch and the position indication circuitry for the Unit 2 cooling tower blowdown valve have been repaired. Appropriate personnel will be counseled with regard to the failure to follow the referenced procedure.

Summary

Based on assessment of the above information, no adverse environmental impact to the Altamaha River occurred as a result of this incident. Plant Hatch has taken appropriate actions to ensure the incident does not recur.

The above information is submitted in accordance with the provisions of Part II A. 2. of the Plant Hatch NPDES Permit (NO. GA0004120).

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Georgia Power

the southern electric system

Chris M. Hobson
Manager,
Licensing and Compliance

January 3, 1992

PLANT HATCH
NPDES Permit No. GA0004120

Mr. Lawrence W. Hedges
Program Manager
Industrial Wastewater Program
205 Butler Street, S.E., Room 1070
Atlanta, Georgia 30334

Dear Mr. Hedges:

In accordance with Part II.A.2. of the above-referenced NPDES permit, attached is a report of the circumstances of the chlorine exceedance which was reported to Mr. Michael S. Creason by telephone on December 30, 1991.

If you have questions or comments, please advise.

Yours very truly,

C. M. Hobson

GNG:el
Attachment

xc: Mr. Michael S. Creason, South Unit Coordinator
Mr. Larry P. Kloet, Environmental Engineer

bc: D. H. Evans
W. R. Woodall, Jr.
J. T. Beckham
W. C. Carr
H. L. Sumner
B. K. Feimster
T. C. Moorer ✓
POW 07-03-05-00
POW 07-02-12-00

All With Attachments

Plant E. I. Hatch
NPDES Permit No. GA 0004120

Description of Event

A weekly sample from the Unit 1 final discharge mixing chamber (OSN 01) taken at 0905 hours on 12/30/91 indicated that chlorinated water was being discharged to the Altamaha River with a total residual chlorine (TRC) concentration of 1.4 parts per million (ppm) and a free available chlorine concentration (FAC) of 1.2 ppm.

No specific chlorine limits for OSN 01 are specified in the NPDES Permit. However, the permit does require an increased sampling frequency at OSN 01 of once per 15 minutes during periods of chlorinated water discharge. A measurable chlorine concentration at OSN 01 was not expected and, therefore, this increased sampling frequency was not being performed prior to the analysis of the weekly sample. An increased sampling frequency was initiated upon discovery of the measurable chlorine concentration.

Cause of Event

The direct cause of the event was an internal failure of the valve which isolates the chlorine addition system from the Unit 1 service water system intake. The chlorine addition system serves the service water intakes for both Unit 1 and Unit 2. Due to the valve failure, the Unit 1 service water system was receiving an unintentional chlorine treatment during a planned chlorine addition to the Unit 2 service water system. The Unit 1 service water system was aligned at the time to discharge directly to OSN 01.

Period of Event

The discharge of chlorinated water began at 0730 when the Unit 1 service water system was first aligned to discharge directly to OSN 01. At 1000, following identification of the failed valve, the chlorine addition to the service water systems was terminated. TRC and FAC concentrations at OSN 01 both decreased to <0.1 ppm by 1040. The time of chlorine discharge through OSN 01 was approximately 190 minutes.

Actions Taken to Prevent Recurrence

1. The failed plant service water chlorine addition valve has been replaced.
2. The corresponding valve for Unit 2 will be inspected for similar conditions as was found on Unit 1 within the next 30 days.

3. As an additional measure to preclude an unplanned discharge of chlorine from the site due to an undetected valve failure, chlorine will normally be added to a plant service water system only when the service water systems of both units are aligned to discharge to the circulating water system of the respective unit. At times when chlorination of the plant service water system is required and the above alignment is not possible (e.g., with either unit's plant service water system being diverted directly to the final discharge mixing chamber) then sampling will be performed at the final discharge mixing chamber of both units to verify that the chlorine addition is occurring only on the desired unit's plant service water system.
4. Chlorination of the plant service water systems for both units has been suspended until the necessary operating procedures have been modified as described above.

ENCLOSURE 2
1991 NPDES OPERATION MONITORING REPORTS

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

Mailing Address
Post Office Box 4545
Atlanta, Georgia 30302

Chris M. Hobson
Manager,
Licensing and Compliance

07-03-01



Georgia Power

the southern electric system

April 19, 1991

Mr. D. M. Word
Chief, Water Protection Branch
2115 Butler Street, S.E. - Room 1070
Atlanta, Georgia 30334

Dear Mr. Word:

As required by the following NPDES Permits, we are submitting the Operation Monitoring Reports for each of the power plants for the quarter ending March 31, 1991.

PLANT ARKWRIGHT	-	NPDES PERMIT NO. GA 0026069
PLANT BRANCH	-	NPDES PERMIT NO. GA 0026051
PLANT HAMMOND	-	NPDES PERMIT NO. GA 0001457
PLANT HATCH	-	NPDES PERMIT NO. GA 0004120
PLANT MCDON/ATK	-	NPDES PERMIT NO. GA 0001431
PLANT MCMANUS	-	NPDES PERMIT NO. GA 0003794
PLANT MITCHELL	-	NPDES PERMIT NO. GA 0001465
PLANT SCHERER	-	NPDES PERMIT NO. GA 0035564
WALLACE DAM	-	NPDES PERMIT NO. GA 0035581
PLANT WANSLEY	-	NPDES PERMIT NO. GA 0026778
PLANT YATES	-	NPDES PERMIT NO. GA 0001473
BARTLETT'S FERRY	-	NPDES PERMIT NO. GA 0001490

While the information contained in this report is a true, accurate and complete presentation of measurements and analytical results observed, such information is subject to the inherent variabilities to make the measurements and results. Such variabilities and inaccuracies are not within the reasonable control of the permittee. The permittee reserves the right to claim all legal and equitable defenses available to it in connection with any exceedances reflected in this report. For these reasons, among others, this report should not be interpreted as an admission by the permittee of permit violations.

All values reported are subject to the analytical variability of the approved test procedures as follows:

<u>Parameter</u>	<u>Range</u>
BOD ₅	± 0.9 mg/l
TSS	± 1.3 mg/l
O&G	± 1.8 mg/l
pH	± 0.05
Cr	± 0.03 mg/l
Zn	± 0.06 mg/l
Fe	± 0.05 mg/l
Mn	± 0.01 mg/l
Total P	± 0.003 mg/l
Temperature	± 0.9°F.

If you have questions or comments, please advise.

Yours very truly,

C M Hobson
C. M. Hobson

GNG:mj
Enclosure

bc: Messrs. C. K. McCoy
J. T. Beckham
C. L. Donaldson
R. L. Boyer
C. W. Hodges
J. L. Conn
H. L. Sumner w/a
J. R. Pope w/a
W. E. Pitts w/a
R. E. Leggett w/a
H. L. Beachner w/a
W. C. Sewell w/a
E. E. Joyner w/a
P. P. Boren w/a
R. F. Norman w/a
K. M. Stefanini w/a
J. M. Mostellar w/a
M. D. Kee w/a
W. B. Shipman w/a
R. L. LeGrand w/a
B. R. Quick w/a
R. A. Pollock w/a
J. H. Jones w/a
K. W. McCracken w/a
A. P. Reeves w/a

✓ File 07-03-01

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4545
Atlanta, Georgia 30302

From: 01-01-91
To: 03-31-91

Permit Number: GA0004120

Discharge Location: 01G - Low Volume Waste (Neutralization Tank)

Type of Sample: Grab
Frequency of Analysis: 2/Mo

Code:	(530)	(550)
Parameter:	Suspended Solids mg/l	Oil & Grease mg/l
Limits:	Avg. 30 Max. 100	Avg. 15 Max. 20

Date:

01-17-91	9.6	<5
01-24-91	3.5	<5
02-08-91	1.3	<5
02-19-91	9.0	<5
03-04-91	0.0	<5
03-28-91	5.4	<5

Number of Samples:	6	6
Average Value:	4.8	<5
Maximum Value:	9.6	<5
Minimum Value:	0.0	<5
Limits Exceeded:	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

FROM: 01-01-91
 TO: 03-31-91

Permit Number: GA0004120

Discharge Location: OlH - Low Volume Waste (Pressure Filters Backwash)

Type of Sample: Grab
 Frequency of Analysis: 1/Qtr

Code:	(530)	(550)
Parameter:	Suspended Solids mg/l	Oil & Grease mg/l
Limits:	Avg. 30 Max. 100	Avg. 15 Max. 20

Date:

02-18-91 (A)	2.0	<5.0
02-18-91 (B)	2.0	<5.0
02-18-91 (C)	1.0	<5.0
02-18-91 (D)	3.0	<5.0

Number of Samples:	4	4
Average Value:	2.0	<5.0
Maximum Value:	3.0	<5.0
Minimum Value:	1.0	<5.0
Limits Exceeded:	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 01-01-91
 To: 03-31-91

Permit Number: GA0004120

Discharge Location: 01A - Cooling Tower Blowdown Unit One

Location:	Blowdown	Blowdown	Blowdown	Tower Basin	Tower Basin
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/WK/Unit	1/WK/Unit	1/WK/Unit	1/Qtr	1/Qtr
Parameter:	FAC-avg.	Fac-max.	Total Time of TRC rel & TRC avg. (min.-mg/l)	Zinc max.	Chromium max.
	(mg/l)	(mg/l)		(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:					
01-01-91	<.1	<.1	0 <.1	--	--
01-09-91	<.1	<.1	0 <.1	--	--
01-16-91	<.1	<.1	0 <.1	--	--
01-23-91	<.1	<.1	0 <.1	--	--
01-30-91	<.1	<.1	0 <.1	--	--
02-04-91	<.1	<.1	0 <.1	--	--
02-11-91	<.1	<.1	0 <.1	--	--
02-21-91	<.1	<.1	0 <.1	--	--
02-27-91	<.1	<.1	0 <.1	<.1	<.1
03-06-91	<.1	<.1	0 <.1	--	--
03-13-91	<.1	<.1	0 <.1	--	--
03-21-91	<.1	<.1	0 <.1	--	--
03-27-91	<.1	<.1	0 <.1	--	--
Number of Samples:	13	13	13 13	1	1
Avg Value:	<.1	<.1	0 <.1	<.1	<.1
Max Value:	<.1	<.1	0 <.1	<.1	<.1
Min Value:	<.1	<.1	0 <.1	<.1	<.1
Limits Exceeded:	0	0	0 0	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4545
Atlanta, Georgia 30302

From: 01-01-91
To: 03-31-91

Permit Number: GA0004120

Discharge Location: 02A - Cooling Tower Blowdown Unit Two

Location:	Blowdown	Blowdown	Blowdown	Tower Basin	Tower Basin
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	FAC-avg.	Fac-max.	Total Time of TRC rel & TRC avg.	Zinc max.	Chromium max.
	(mg/l)	(mg/l)	(min.-mg/l)	(mg/l)	(mg/l)

Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034

Date:

01-02-91	<.1	<.1	0	<.1	--	--
01-09-91	<.1	<.1	0	<.1	--	--
01-16-91	<.1	<.1	0	<.1	--	--
01-23-91	<.1	<.1	0	<.1	--	--
01-30-91	<.1	<.1	0	<.1	--	--
02-04-91	<.1	<.1	0	<.1	--	--
02-12-91	<.1	<.1	0	<.1	--	--
* 02-21-91	--	--	--	--	--	--
02-27-91	<.1	<.1	0	<.1	<.1	<.1
03-06-91	<.1	<.1	0	<.1	--	--
03-13-91	<.1	<.1	0	<.1	--	--
03-21-91	<.1	<.1	0	<.1	--	--
* 03-27-91	--	--	--	--	--	--

Number of						
Samples:	11	11	11	11	1	1
Avg Value:	<.1	<.1	0	<.1	<.1	<.1
Max Value:	<.1	<.1	0	<.1	<.1	<.1
Min Value:	<.1	<.1	0	<.1	<.1	<.1
Limits						
Exceeded:	0	0	0	0	0	0

* unit in outage.

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 01-01-91
 To: 03-31-91

Permit Number: GA0004120

Discharge Location: 01B - Unit One Cooling Water Overflow

Location:	Blowdown	Blowdown	Blowdown	Tower Disch.	Tower Disch.
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	FAC-avg.	FAC-max.	Total Time of TRC rel & TRC avg. (min.-mg/l)	Zinc max.	Chromium max.
	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:					
03-14-91	--	--	--	<.1	<.1

Number of					
Samples:	0	0	0	1	1
Avg Value:	--	--	--	<.1	<.1
Max Value:	--	--	--	<.1	<.1
Min Value:	--	--	--	<.1	<.1
Limits					
Exceeded:	0	0	0	0	0

There was no sampling of this discharge location for FAC or TRC because there were no overflows of chlorinated water.

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 01-01-91
 To: 03-31-91

Permit Number: GA0004120

Discharge Location: 02B - Unit Two Cooling Tower Overflow To Storm
 Drains

Location:	Blowdown	Blowdown	Blowdown	Tower Disch.	Tower Disch.
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	FAC-avg.	Fac-max.	Total Time of TRC rel & TRC avg.	Zinc max.	Chromium max.
	(mg/l)	(mg/l)	(min.-mg/l)	(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:					
03-19-91	--	--	--	<0.1	<0.1

Number of					
Samples:	0	0	0	1	1
Avg Value:	0	0	0	<0.1	<0.1
Max Value:	0	0	0	<0.1	<0.1
Min Value:	0	0	0	<0.1	<0.1
Limits					
Exceeded:	0	0	0	0	0

There was no sampling of this discharge location for FAC or TRC because there was no overflow of chlorinated water.

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 01-01-91
 To: 03-31-91

Permit Number: GA0004120

Discharge Location: 02C - Unit Two Cooling Water Overflow

Location:	Blowdown	Blowdown	Blowdown	Tower Disch.	Tower Disch.
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Ctr	1/Qtr
Parameter:	FAC-avg.	Fac-max.	Total Time of TRC rel & TRC avg.	Zinc max.	Chromium max.
	(mg/l)	(mg/l)	(min.-mg/l)	(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:					
03-19-91	--	--	--	<0.1	<0.1

Number of					
Samples:	0	0	0	1	1
Avg Value:	0	0	0	<0.1	<0.1
Max Value:	0	0	0	<0.1	<0.1
Min Value:	0	0	0	<0.1	<0.1
Limits					
Exceeded:	0	0	0	0	0

There was no sampling of this discharge location for FAC or TRC because there was no overflow of chlorinated water.

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 01-01-91
 To: 03-31-91

Permit Number: GA0004120

Discharge Location: 01E - Low Volume Waste (Liquid Radwaste System Unit One)

Type of Sample: Grab
 Frequency of Analysis: 2/Mo

Code:	(530)	(550)
Parameter:	Suspended Solids mg/l	Oil & Grease mg/l
Limits:	Avg. 30 Max. 100	Avg. 15 Max. 20

Date:

01-07-91	16.0	5.1
01-21-91	17.1	10.6
02-05-91	16.0	13.2
02-21-91	15.0	11.9
03-04-91	13.4	10.2
03-18-91	28.0	2.4

Number of Samples:	6	6
Average Value:	17.6	8.9
Maximum Value:	28.0	13.2
Minimum Value:	13.4	2.4
Limits Exceeded:	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 01-01-91
 To: 03-31-91

Permit Number: GA0004120

Discharge Location: 02E - Low Volume Waste (Liquid Radwaste System
 Unit Two)

Type of Sample: Grab
 Frequency of Analysis: 2/Mo

Code:	(530)	(550)
Parameter:	Suspended Solids mg/l	Oil & Grease mg/l
Limits:	Avg. 30 Max. 300	Avg. 15 Max. 20

Date:

01-09-91	2.5	<5
01-21-91	0.87	<5
02-04-91	1.0	<5
02-20-91	2.0	<5
03-04-91	0.6	<5
03-18-91	1.4	<5

Number of Samples:	6	6
Average Value:	1.38	<5
Maximum Value:	2.5	<5
Minimum Value:	0.6	<5
Limits Exceeded:	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 01-01-91
 To: 03-31-91

Permit Number: GA0004120

Discharge Location: 01 - Combined Plant Waste Streams Unit One

Frequency of Analysis: 1/Wk

Type of Samples: In Situ
 Parameter: Temperature
 Limits: Deg. F

Grab
 T.R.C.
 N/A

Grab
 F.A.C.
 N/A

Grab
 pH
 Min. 6.0
 Max. 9.0

Code: (11) (50060) (50064) (400)

Date:

01-07-91	69	<.1	<.1	7.4
01-14-91	73	<.1	<.1	7.3
01-21-91	61	<.1	<.1	7.3
01-28-91	75	<.1	<.1	7.6
02-04-91	67	<.1	<.1	6.6
02-11-91	74	<.1	<.1	6.2
02-18-91	68	<.1	<.1	6.9
02-25-91	68	<.1	<.1	7.9
03-04-91	71	<.1	<.1	7.4
03-11-91	71	<.1	<.1	7.4
03-18-91	78	<.1	<.1	7.6
03-25-91	64	<.1	<.1	7.7

Number of Samples:	12	12	12	12
Average Value:	69.9	<.1	<.1	7.28
Maximum Value:	78	<.1	<.1	7.9
Minimum Value:	61	<.1	<.1	6.2
Limits Exceeded:	0	0	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.J. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30303

From: 01-01-91
 To: 03-31-91

Permit Number: GA0004120

Discharge Location: 02 - Combined Plant Waste Streams Unit Two

Frequency of Analysis: 1/WK

Type of Samples: In Situ

Parameter: Temperature

Limits: Deg. F

Grab
 T.R.C.
 N/A

Grab
 F.A.C.
 N/A

Grab
 pH
 Min. 6.0
 Max. 9.0

Code: (11) (50060) (50064) (400)

Date:

01-07-91	82	<.1	<.1	8.2
01-14-91	62	<.1	<.1	7.0
01-21-91	61	<.1	<.1	7.2
01-28-91	59	<.1	<.1	7.0
02-04-91	77	<.1	<.1	7.4
02-11-91	66	<.1	<.1	7.4
02-18-91	68	<.1	<.1	7.1
02-25-91	68	<.1	<.1	7.6
03-04-91	73	<.1	<.1	7.6
03-11-91	71	<.1	<.1	7.4
03-18-91	82	<.1	<.1	7.8
03-25-91	68	<.1	<.1	7.2

Number of Samples.	12	12	12	12
Average Value:	69.8	<.1	<.1	7.41
Maximum Value:	82	<.1	<.1	8.2
Minimum Value:	59	<.1	<.1	7.0
Limits Exceeded:	0	0	0	0

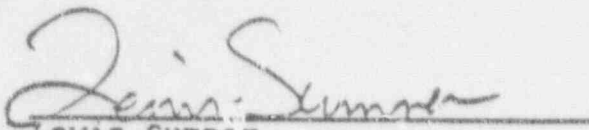
NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4115
Atlanta, Georgia 30302

From: 01-01-91
To: 03-31-91

Permit Number: GA0004120

I certify under the penalty of law that this document and all data were prepared under the direction or supervision in accordance with a system designed to assure that qualified personnel properly obtain 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.


Lewis Sumner
General Manager

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4545
Atlanta, Georgia 30302

From: 01-01-91
To: 03-31-91

Permit Number: GA0004120

All values reported are subject to the analytical variability of the approved test procedures as follows:

<u>Parameter</u>	<u>Range</u>
BOD	+/- 0.9 mg/l
TSS	+/- 1.3 mg/l
O&G	+/- 1.8 mg/l
pH	+/- 0.05
Cr	+/- 0.03 mg/l
Zn	+/- 0.06 mg/l
Fe	+/- 0.05 mg/l
Mn	+/- 0.01 mg/l
Total P	+/- 0.003 mg/l
Temperature	+/- 0.9 F

PLANT E.L. HATCH NPDES LOG

DATE /TIME EVENT BEGAN	ANTICIPATED OR ACTUAL DATE/ TIME CEASES	APPROX. FLOW RATE	CAUSE AND ACTION TAKEN TO REDUCE/ELIMINATE /PREVENT, RECURRENCE	SAMPLES TAKEN	SAMPLE RESULTS
23 Jan 91 0915	23 Jan 91 1015	Intermittant	Approx. 600 gallons of untreated sewage was discharged onto the ground from the lift station located in front of the Unit One Turbine Building. The cause of the discharge was due to a piece of "A" cloth which had covered the inlet pipe to the booster pumps. This was found after maintenance pumped the receiving tank down to the inlet pipe level. After problem was corrected the lift station was placed back into service at 1600 EST 23 Jan 91. No further action required.	None	N/A

AK:ADJ:WZL
DSR:RWZ:WKK:BKF

PLANT MANAGER

H.L. Sumner for HLS 1/30/91
H.L. Sumner - General Manager, Nuclear Plant

Mailing Address:
Post Office Box 4545
Atlanta, Georgia 30302

07-03-4



Georgia Power

the southern electric system

Environmental Affairs

July 27, 1991

Mr. D. M. Word
Chief, Water Protection Branch
205 Butler Street, S.E. - Room 1070
Atlanta, Georgia 30334

Dear Mr. Word:

As required by the following NPDES Permits, we are submitting the Operation Monitoring Reports for each of the power plants for the quarter ending June 30, 1991.

PLANT ARKWRIGHT	-	NPDES PERMIT NO. GA 0026069
PLANT BOWEN	-	NPDES PERMIT NO. GA 0001449
PLANT BRANCH	-	NPDES PERMIT NO. GA 0026051
PLANT HAMMOND	-	NPDES PERMIT NO. GA 0001457
PLANT HATCH	-	NPDES PERMIT NO. GA 0004120
PLANT MCDON/ATK	-	NPDES PERMIT NO. GA 0001431
PLANT MCMANUS	-	NPDES PERMIT NO. GA 0003794
PLANT MITCHELL	-	NPDES PERMIT NO. GA 0001465
PLANT SCHERER	-	NPDES PERMIT NO. GA 0035564
WALLACE DAM	-	NPDES PERMIT NO. GA 0035581
PLANT WANSLEY	-	NPDES PERMIT NO. GA 0026778
PLANT YATES	-	NPDES PERMIT NO. GA 0001473
BARTLETT'S FERRY	-	NPDES PERMIT NO. GA 0001490
TALLULAH FALLS HYDRO	-	NPDES PERMIT NO. GA 0004162

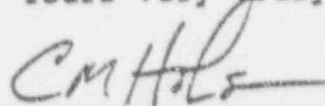
While the information contained in this report is a true, accurate and complete presentation of measurements and analytical results observed, such information is subject to the inherent variabilities to make the measurements and results. Such variabilities and inaccuracies are not within the reasonable control of the permittee. The permittee reserves the right to claim all legal and equitable defenses available to it in connection with any exceedances reflected in this report. For these reasons, among others, this report should not be interpreted as an admission by the permittee of permit violations.

All values reported are subject to the analytical variability of the approved test procedures as follows:

<u>Parameter</u>	<u>Range</u>
BOD ₅	± 0.9 mg/l
TSS	± 1.3 mg/l
O&G	± 1.8 mg/l
pH	± 0.05
Cr	± 0.03 mg/l
Zn	± 0.06 mg/l
Fe	± 0.05 mg/l
Mn	± 0.01 mg/l
Total P	± 0.003 mg/l
Temperature	± 0.9°F.

If you have questions or comments, please advise.

Yours very truly,



C. M. Hobson

GNG:KD
Enclosure

cc: Messrs. C. K. McCoy P. P. Boren w/a
J. T. Beckham R. E. Norman w/a
C. L. Donaldson K. M. Stefanini w/a
R. L. Boyer J. M. Mostellar w/a
J. L. Conn M. D. Kee w/a
H. L. Sumner w/a W. B. Shipman w/a
J. R. Pope w/a R. L. LeGrand w/a
W. E. Pitts w/a B. R. Quick w/a
R. E. Leggett w/a R. A. Pollock w/a
H. L. Beacher w/a J. H. Jones w/a
W. C. Sewell w/a W. C. Carr w/a
E. E. Joyner w/a A. P. Reeves w/a
✓ File 07-03-01

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4345
Atlanta, Georgia 30302

From: 04-01-91
To: 06-30-91

Permit Number: GA0004120

Discharge Location: 01G - Low Volume Waste (Neutralization Tank)

Type of Sample: Grab
Frequency of Analysis: 2/Mo

Code:	(530)	(550)
Parameter:	Suspended Solids mg/l	Oil & Grease mg/l
Limits:	Avg. 30 Max. 100	Avg. 15 Max. 20
Date:		
04-04-91	92.5	<5
04-16-91	1.8	<5
05-07-91	23.3	<5
05-22-91	4.3	<5
06-08-91	27.7	<5
06-21-91	16.5	<5

Number of Samples:	6	6
Average Value:	27.6	<5
Maximum Value:	92.5	<5
Minimum Value:	1.8	<5
Limits Exceeded:	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant L.E. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 04-01-91
 To: 06-30-91

Permit Number: GA0004120

Discharge Location: OIH - Low Volume Waste (Pressure Filters Backwash)

Type of Sample: Grab
 Frequency of Analysis: 1/Qtr

Code:	(530)	(550)
Parameter:	Suspended Solids mg/l	Oil & Grease mg/l
Limits:	Avg. 30 Max. 100	Avg. 15 Max. 20
Date:		
05-07-91 (A)	2.0	<5.0
05-07-91 (B)	2.0	<5.0
05-07-91 (C)	2.0	9.0
05-07-91 (D)	2.0	<5.0

Number of Samples:	4	4
Average Value:	2.0	<5.0
Maximum Value:	2.0	9
Minimum Value:	2.0	<5.0
Limits Exceeded:	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 04-01-91
 To: 06-30-91

Permit Number: GA0004120

Discharge Location: 01A - Cooling Tower Blowdown Unit One

Location:	Blowdown	Blowdown	Blowdown	Tower Basin	Tower Basin
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	FAC-avg.	Fac-max.	Total Time of TRC rel & TRC avg.	Zinc max.	Chromium max.
	(mg/l)	(mg/l)	(min.-mg/l)	(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:					
04-03-91	<.1	<.1	0 <.1	--	--
04-04-91	--	--	--	<.1	<.1
04-10-91	<.1	<.1	0 <.1	--	--
04-17-91	<.1	<.1	0 <.1	--	--
04-24-91	<.1	<.1	0 <.1	--	--
05-01-91	<.1	<.1	0 <.1	--	--
05-09-91	<.1	<.1	0 .1	--	--
05-15-91	<.1	<.1	0 <.1	--	--
05-22-91	<.1	<.1	0 <.1	--	--
05-29-91	<.1	<.1	0 <.1	--	--
06-05-91	<.1	<.1	0 <.1	--	--
06-12-91	<.1	<.1	0 <.1	--	--
06-19-91	<.1	<.1	0 <.1	--	--
06-26-91	<.1	<.1	0 <.1	--	--
Number of Samples:	13	13	13 13	1	1
Avg Value:	<.1	<.1	0 <.1	<.1	<.1
Max Value:	<.1	<.1	0 .1	<.1	<.1
Min Value:	<.1	<.1	0 <.1	<.1	<.1
Limits Exceeded:	0	0	0 0	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 04-01-91
 To: 06-30-91

Permit Number: GA0004120

Discharge Location: 02A - Cooling Tower Blowdown Unit Two

Location:	Blowdown	Blowdown	Blowdown	Tower Basin	Tower Basin
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	FAC-avg.	Fac-max.	Total Time of TRC rel & TRC avg.	Zinc max.	Chromium max.
	(mg/l)	(mg/l)	(min.-mg/l)	(mg/l)	(mg/l)

Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034

Date:

04-03-91	*	*	*	*	*
04-10-91	*	*	*	*	*
04-17-91	*	*	*	*	*
04-24-91	*	*	*	*	*
05-01-91	*	*	*	*	*
05-08-91	*	*	*	*	*
05-10-91	*	*	*	*	*
05-22-91	*	*	*	*	*
05-29-91	*	*	*	*	*
06-05-91	<.1	<.1	0	<.1	--
06-12-91	<.1	<.1	0	<.1	<.1
06-19-91	<.1	<.1	0	<.1	--
06-26-91	.1	.1	0	0.2	--

Number of					
Samples:	13	13	13	1	1
Avg Value:	<.1	<.1	0	<.1	<0.1
Max Value:	.1	.1	0	<.1	<0.1
Min Value:	<.1	<.1	0	<.1	<0.1
Limits					
Exceeded:	0	0	0	0	0

* unit in stage.

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 04-01-91
 To: 06-30-91

Permit Number: GA0004120

Discharge Location: 01B - Unit One Cooling Water Overflow

Location:	Blowdown	Blowdown	Blowdown	Tower Disch.	Tower Disch.
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	FAC-avg.	FAC-max.	Total Time of TRC rel & TRC Avg.	Zinc max.	Chromium max.
	(mg/l)	(mg/l)	(min.-mg/l)	(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:					
04-04-91	--	--	--	<.1	<.1

Number of					
Samples:	0	0	0	1	1
Avg Value:	--	--	--	<.1	<.1
Max Value:	--	--	--	<.1	<.1
Min Value:	--	--	--	<.1	<.1
Limits					
Exceeded:	0	0	0	0	0

There was no sampling of this discharge location for FAC or TRC because there were no overflows of chlorinated water.

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 04-01-91
 To: 06-30-91

Permit Number: GA0004120

Discharge Location: 02B - Unit Two Cooling Tower Overflow To Storm
 Drains

Location:	Blowdown	Blowdown	Blowdown	Tower Disch.	Tower Disch.
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	FAC-avg.	FAC-max.	Total Time of TRC rel & TRC avg. (min.-mg/l)	Zinc max.	Chromium max.
	(mg/l)	(mg/l)	(min.-mg/l)	(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:					
06-01-91	--	--	--	<0.1	<0.1

Number of					
Samples:	0	0	0	1	1
Avg Value:	0	0	0	<0.1	<0.1
Max Value:	0	0	0	<0.1	<0.1
Min Value:	0	0	0	<0.1	<0.1
Limits					
Exceeded:	0	0	0	0	0

There was no sampling of this discharge location for FAC or TRC because there was no overflow of chlorinated water.

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 04-01-91
 To: 06-30-91

Permit Number: GA0004120

Discharge Location: 02C - Unit Two Cooling Water Overflow

Location:	Blowdown	Blowdown	Blowdown	Tower Disch.	Tower Disch.
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	FAC-avg.	Fac-max.	Total Time of TRC rel & TRC avg.	Zinc max.	Chromium max.
	(mg/l)	(mg/l)	(min.-mg/l)	(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:					
06-01-91	--	--	--	<0.1	<0.1

Number of					
Samples:	0	0	0	1	1
Avg Value:	0	0	0	<0.1	<0.1
Max Value:	0	0	0	<0.1	<0.1
Min Value:	0	0	0	<0.1	<0.1
Limits					
Exceeded:	0	0	0	0	0

There was no sampling of this discharge location for FAC or TRC because there was no overflow of chlorinated water.

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4545
Atlanta, Georgia 30302

From: 04-01-91
To: 06-30-91

Permit Number: GA0004120

Discharge Location: 01E - Low Volume Waste (Liquid Radwaste System Unit One)

Type of Sample: Grab
Frequency of Analysis: 2/Mo

Code:	(530)	(550)
Parameter:	Suspended Solids mg/l	Oil & Grease mg/l
Limits:	Avg. 30 Max. 100	Avg. 15 Max. 20

Date:

04-01-91	8.0	8.3
04-15-91	2.0	0.7
05-06-91	15.0	8.8
05-20-91	28.0	15.3
06-03-91	2.4	0.0
06-17-91	20.0	5.5

Number of Samples:	6	6
Average Value:	12.5	5.6
Maximum Value:	28.0	15.3
Minimum Value:	2.0	0
Limits Exceeded:	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4545
Atlanta, Georgia 30302

From: 04-01-91
To: 06-30-91

Permit Number: GA0004120

Discharge Location: 02E - Low Volume Waste (Liquid Radwaste System
Unit Two)

Type of Sample: Grab
Frequency of Analysis: 2/Mo

Code:	(530)	(550)
Parameter:	Suspended Solids mg/l	Oil & Grease mg/l
Limits:	Avg. 30 Max. 100	Avg. 15 Max. 20

Date:

04-01-91	0.0	2.7
04-15-91	3.0	2.4
05-06-91	1.3	1.5
05-20-91	2.0	0.6
06-08-91	1.7	0.4
06-21-91	2.7	2.1

Number of Samples:	6	6
Average Value:	1.8	1.6
Maximum Value:	3.0	2.7
Minimum Value:	0	0.4
Limits Exceeded:	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.T. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 04-01-91
 To: 06-30-91

Permit Number: GA0004120

Discharge Location: 01 - Combined Plant Waste Streams Unit One

Frequency of Analysis: 1/WK

Type of Samples: In Situ

Parameter: Temperature

Limits: Deg. F

Grab
 T.R.C.
 N/A

Grab
 F.A.C.
 N/A

Grab
 pH
 Min. 6.0
 Max. 9.0

Code: (11) (50060) (50064) (400)

Date:

04-01-91	73	<.1	<.1	7.3
04-08-91	75	<.1	<.1	7.0
04-15-91	82	<.1	<.1	7.6
04-22-91	75	<.1	<.1	7.3
04-29-91	84	<.1	<.1	7.8
05-06-91	84	<.1	<.1	6.8
05-13-91	84	<.1	<.1	6.9
05-20-91	82	<.1	<.1	6.8
05-27-91	84	<.1	<.1	7.0
06-03-91	80	<.1	<.1	7.6
06-10-91	82	<.1	<.1	7.6
06-17-91	88	<.1	<.1	7.6
06-24-91	91	<.1	<.1	7.7

Number of Samples:	13	13	13	13
Average Value:	82	<.1	<.1	7.3
Maximum Value:	91	<.1	<.1	7.8
Minimum Value:	73	<.1	<.1	6.8
Limits Exceeded:	0	0	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 04-01-91
 To: 06-30-91

Permit Number: GA0004120

Discharge Location: 02 - Combined Plant Waste Streams Unit Two

Frequency of Analysis: 1/Wk

Type of Samples:	In Situ	Grab	Grab	Grab
Parameter:	Temperature	T.R.C.	F.A.C.	pH
Limits:	Deg. F	N/A	N/A	Min. 6.0 Max. 9.0

Code:	(11)	(50060)	(50064)	(400)
-------	------	---------	---------	-------

Date:

04-01-91	66	<.1	<.1	7.4
04-08-91	68	<.1	<.1	6.8
04-15-91	69	<.1	<.1	7.0
04-22-91	69	<.1	<.1	7.2
04-29-91	71	<.1	<.1	7.0
05-06-91	71	<.1	<.1	7.4
05-13-91	74	<.1	<.1	7.3
05-20-91	77	<.1	<.1	7.4
05-27-91	78	<.1	<.1	7.4
06-03-91	77	<.1	<.1	7.5
06-10-91	85	<.1	<.1	7.8
06-17-91	89	<.1	<.1	7.5
06-24-91	89	<.1	<.1	8.2

Number of Samples:	13	13	13	13
Average Value:	76	<.1	<.1	7.4
Maximum Value:	89	<.1	<.1	8.2
Minimum Value:	59	<.1	<.1	6.8
Limits Exceeded:	0	0	0	0

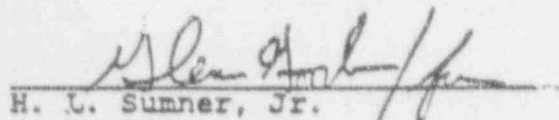
NPDES: OPERATION MONITORING REPORT

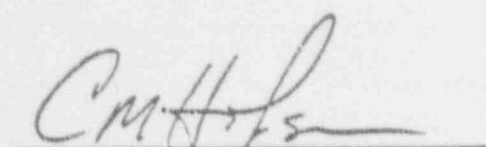
Georgia Power Company
Plant E.I. Hatch
P.O. Box 4545
Atlanta, Georgia 30302

From: 04-01-91
To: 06-30-91

Permit Number: GA0004120

I certify under the penalty of law that this document and all attachments were prepared under the 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.


H. L. Sumner, Jr.
General Manager
Nuclear Plant


C. M. Hobson
Manager, Licensing & Compliance
Environmental Affairs

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4545
Atlanta, Georgia 30302

From: 04-01-91
To: 06-30-91

Permit Number: GA0004120

All values reported are subject to the analytical variability of the approved test procedures as follows:

<u>Parameter</u>	<u>Range</u>
BOD	+/- 0.9 mg/l
TSS	+/- 1.3 mg/l
O&G	+/- 1.8 mg/l
pH	+/- 0.05
Cr	+/- 0.03 mg/l
Zn	+/- 0.06 mg/l
Fe	+/- 0.05 mg/l
Mn	+/- 0.01 mg/l
Total P	+/- 0.003 mg/l
Temperature	+/- 0.9 F

Georgia Power Company
333 Piedmont Avenue
Atlanta, Georgia 30305
Telephone 404 526-6526

Mailing Address
Post Office Box 4545
Atlanta, Georgia 30302



Chris M. Hobson
Manager
Licensing and Compliance

October 18, 1991

Mr. D. M. Word
Chief, Water Protection Branch
205 Butler Street, S.E. - Room 1070
Atlanta, Georgia 30334

Dear Mr. Word:

As required by the following NPDES Permits, we are submitting the Operation Monitoring Reports for each of the power plants for the quarter ending September 30, 1991.

PLANT ARKWRIGHT	-	NPDES PERMIT NO. GA 0026069
PLANT BOWEN	-	NPDES PERMIT NO. GA 0001449
PLANT BRANCH	-	NPDES PERMIT NO. GA 0026051
PLANT HAMMOND	-	NPDES PERMIT NO. GA 0001457
PLANT HATCH	-	NPDES PERMIT NO. GA 0004120
PLANT MCDON/ATK	-	NPDES PERMIT NO. GA 0001432
PLANT MCMANUS	-	NPDES PERMIT NO. GA 0003794
PLANT MITCHELL	-	NPDES PERMIT NO. GA 0001465
PLANT SCHERER	-	NPDES PERMIT NO. GA 0035564
PLANT VOGTLE	-	NPDES PERMIT NO. GA 0026786
WALLACE DAM	-	NPDES PERMIT NO. GA 0035581
PLANT WANSLEY	-	NPDES PERMIT NO. GA 0026778
PLANT YATES	-	NPDES PERMIT NO. GA 0001473
BARTLETT'S FERRY	-	NPDES PERMIT NO. GA 0001490
TALLULAH FALLS HYDRO	-	NPDES PERMIT NO. GA 0004162

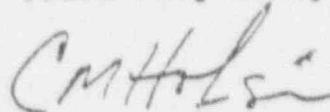
While the information contained in this report is a true, accurate and complete presentation of measurements and analytical results observed, such information is subject to the inherent variabilities to make the measurements and results. Such variabilities and inaccuracies are not within the reasonable control of the permittee. The permittee reserves the right to claim all legal and equitable defenses available to it in connection with any exceedances reflected in this report. For these reasons, among others, this report should not be interpreted as an admission by the permittee of permit violations.

All values reported are subject to the analytical variability of the approved test procedures as follows:

<u>Parameter</u>	<u>Range</u>
BOD ₅	± 0.9 mg/l
TSS	± 1.3 mg/l
OLG	± 1.8 mg/l
pH	± 0.05
Cr	± 0.03 mg/l
Zn	± 0.06 mg/l
Fe	± 0.05 mg/l
Mn	± 0.01 mg/l
Total P	± 0.003 mg/l
Temperature	± 0.9°F.

If you have questions or comments, please advise.

Yours very truly,



C. M. Hobson

GNG:KD
Enclosure

cc: Messrs. C. K. McCoy
J. T. Beckham
C. L. Donaldson
R. L. Boyer
J. L. Conn
H. L. Sumner w/a
J. R. Pope w/a
W. E. Pitts w/a
R. E. Leggett w/a
H. L. Beacher w/a
W. C. Sewell w/a
E. E. Joyner w/a
File 07-03-01

P. P. Boren w/a
A. R. James w/a
K. M. Stefanini w/a
J. M. Mostellar w/a
M. D. Kee w/a
W. B. Shipman w/a
R. L. LeGrand w/a
B. R. Quick w/a
R. A. Pollock w/a
J. H. Jones w/a
W. C. Carr w/a
A. P. Reeves w/a

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4545
Atlanta, Georgia 30307

From: 07-01-91
To: 09-30-91

Permit Number: GA0004120

Discharge Location: 01G - Low Volume Waste (Neutralization Tank)

Type of Sample: Grab
Frequency of Analysis: 2/Mo

Code:	(530)	(550)
Parameter:	Suspended Solids mg/l	Oil & Grease mg/l
Limits:	Avg. 30 Max. 100	Avg. 15 Max. 20
Date:		
07-08-91	12.0	<5
08-04-91	10.6	<5
08-09-91	7.0	<5
08-23-91	11.0	<5
09-02-91	12.5	<5
09-19-91	2.2	<5

Number of Samples:	6	6
Average Value:	9.21	<5
Maximum Value:	12.5	<5
Minimum Value:	2.2	<5
Limits Exceeded:	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 07-01-91
 To: 09-30-91

Permit Number: GA0004120

Discharge Location: 01H - Low Volume Waste (Pressure Filters Backwash)

Type of Sample: Grab
 Frequency of Analysis: 1/Qtr

Code:	(530)	(550)
Parameter:	Suspended Solids mg/l	Oil & Grease mg/l
Limits:	Avg. 30 Max. 100	Avg. 15 Max. 20
Date:		
*06-03-91 (A)	1.0	<5.0
08-28-91 (A)	<1.0	<5.0
08-14-91 (B)	2.0	<5.0
08-28-91 (C)	2.0	<5.0
08-14-91 (D)	<1.0	<5.0

Number of Samples:	5	5
Average Value:	1.0	<5.0
Maximum Value:	2.0	<5.0
Minimum Value:	<1.0	<5.0
LIMITS EXCEEDED	0	0

*EPD COMPLIANCE AUDIT CROSSCHECK SAMPLE

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4545
Atlanta, Georgia 30302

From: 07-01-91
To: 09-30-91

Permit Number: GA0004120

Discharge Location: 01A - Cooling Tower Blowdown Unit One

Location:	Blowdown	Blowdown	Blowdown	Tower Basin	Tower Basin
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	FAC-avg.	Fac-max.	Total Time of TRC rel & TRC avg.	Zinc max.	Chromium max.
	(mg/l)	(mg/l)	(min.-mg/l)	(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:					
07-03-91	<.1	<.1	0 <.1	--	--
07-03-91	--	--	- --	<.1	<.1
07-10-91	<.1	<.1	0 <.1	--	--
07-17-91	<.1	<.1	0 <.1	--	--
07-25-91	<.1	<.1	0 <.1	--	--
07-31-91	<.1	<.1	0 <.1	--	--
08-07-91	<.1	<.1	0 .1	--	--
08-14-91	<.1	<.1	0 <.1	--	--
08-21-91	<.1	<.1	0 <.1	--	--
08-27-91	<.1	<.1	0 <.1	--	--
09-03-91	<.1	<.1	0 <.1	--	--
09-12-91	<.1	<.1	0 <.1	--	--
09-19-91	<.1	<.1	0 <.1	--	--
*09-20-91	<.1	<.1	- --	<.1	<.1
09-27-91	<.1	<.1	0 <.1	--	--
Number of					
Samples:	14	14	14 14	2	2
Avg Value:	<.1	<.1	0 <.1	<.1	<.1
Max Value:	<.1	<.1	0 .1	<.1	<.1
Min Value:	<.1	<.1	0 <.1	<.1	<.1
Limits					
Exceeded:	0	0	0 0	0	0

*PRIOR TO DRAINING UNIT ONE COOLING TOWER BASIN DURING UNIT ONE OUTAGE
NOTE: SEE ATTACHMENT 1 FOR DATA CONCERNING UNIT ONE CIRC WATER CHLORINATION/DECHLORINATION DURING THE TIME PERIOD OF 8-28-91 TO 9-15-91.

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 07-01-91
 To: 09-30-91

Permit Number: GA0004120

Discharge Location: 02A - Cooling Tower Blowdown Unit Two

Location:	Blowdown	Blowdown	Blowdown	Tower Basin	Tower Basin
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	FAC-avg.	Fac-max.	Total Time of TRC rel & TRC avg.	Zinc max.	Chromium max.
	(mg/l)	(mg/l)	(min.-mg/l)	(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:					
07-03-91	<0.1	<0.1	0	<0.1	.10
07-10-91	<0.1	<0.1	0	<0.1	--
07-17-91	<0.1	<0.1	0	<0.1	--
07-25-91	<0.1	<0.1	0	<0.1	--
07-31-91	<0.1	<0.1	0	<0.1	--
08-07-91	<0.1	<0.1	0	<0.1	--
08-13-91	<0.1	<0.1	0	<0.1	--
08-21-91	<0.1	<0.1	0	<0.1	--
08-27-91	<0.1	<0.1	0	<0.1	--
09-04-91	<0.1	<0.1	0	<0.1	--
09-12-91	<0.1	<0.1	0	<0.1	--
09-18-91	<0.1	<0.1	0	<0.1	--
09-25-91	<0.1	<0.1	0	<0.1	--
Number of Samples:	13	13	13	13	1
Avg Value:	<.1	<.1	0	<.1	<.1
Max Value:	<.1	<.1	0	<.1	.1
Min Value:	<.1	<.1	0	<.1	<.1
Limits Exceeded:	0	0	0	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 07-01-91
 To: 09-30-91

Permit Number: GA0004120

Discharge Location: 01B - Unit One Cooling Water Overflow

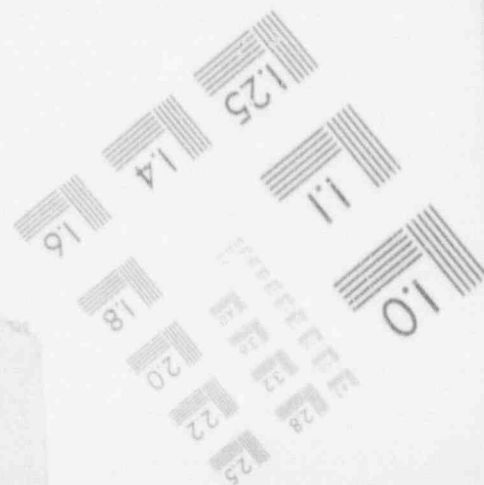
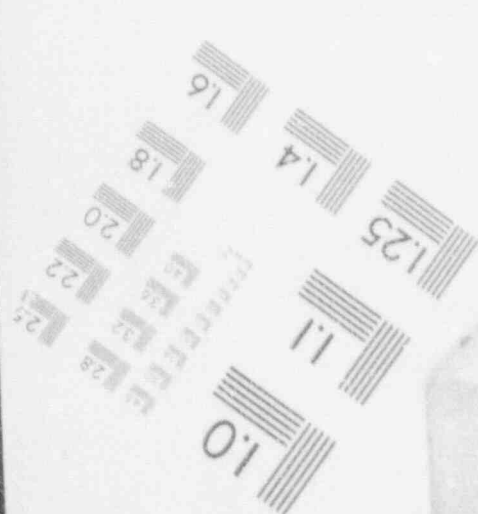
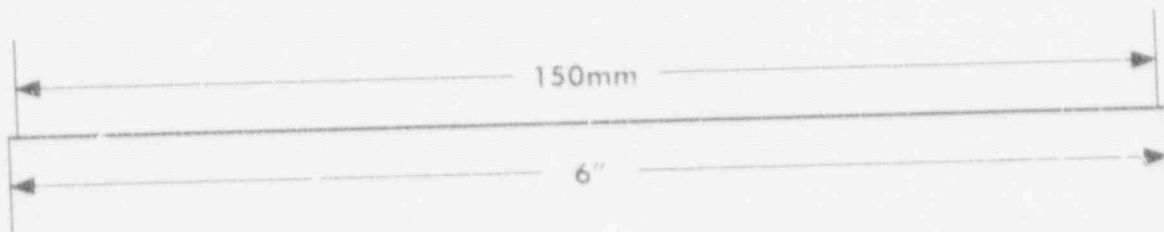
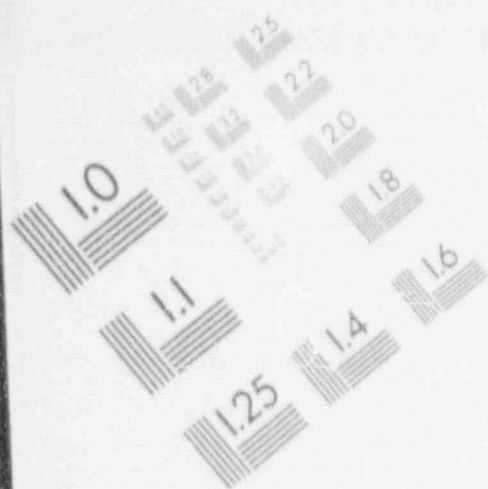
Location:	Blowdown	Blowdown	Blowdown	Tower Disch.	Tower Disch.
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	FAC-avg.	Fac-max.	Total Time of TRC rel & TRC avg.	Zinc max.	Chromium max.
	(mg/l)	(mg/l)	(min.-mg/l)	(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:					
09-19-91	--	--	--	<.1	<.1

Number of					
Samples:	0	0	0	1	1
Avg Value:	--	--	--	<.1	<.1
Max Value:	--	--	--	<.1	<.1
Min Value:	--	--	--	<.1	<.1
Limits					
Exceeded:	0	0	0	0	0

There was no sampling of this discharge location for FAC or TRC because there were no overflows of chlorinated water.

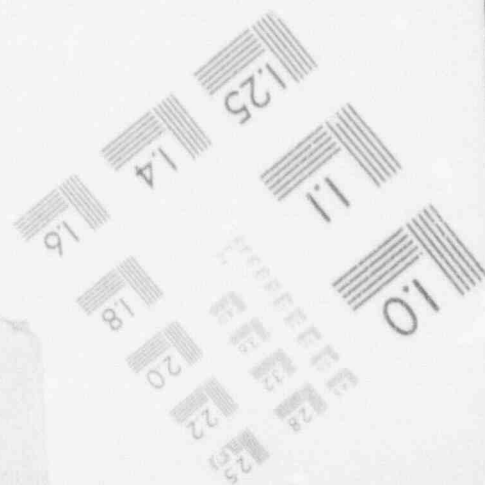
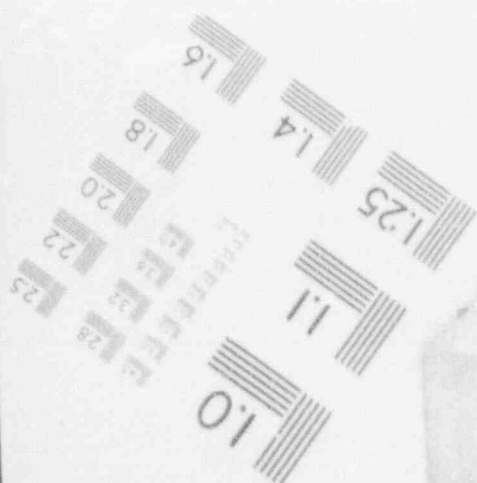
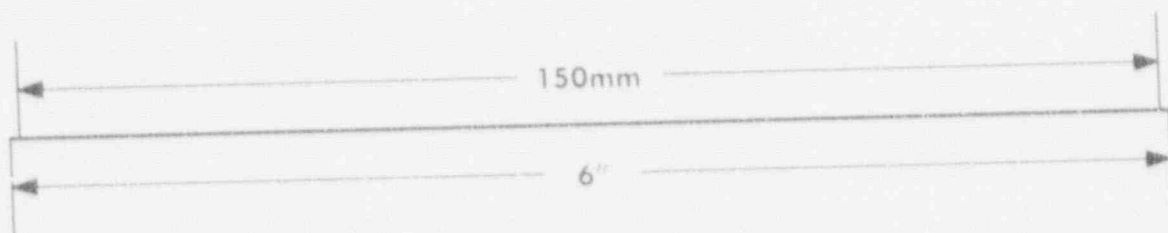
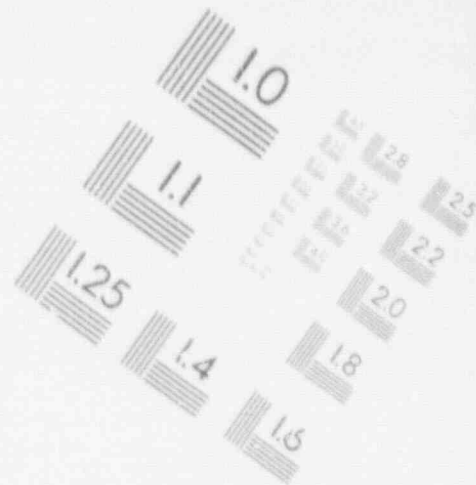
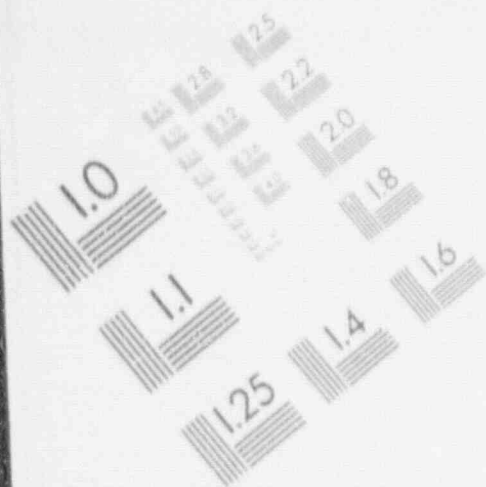
1

IMAGE EVALUATION
TEST TARGET (MT-3)



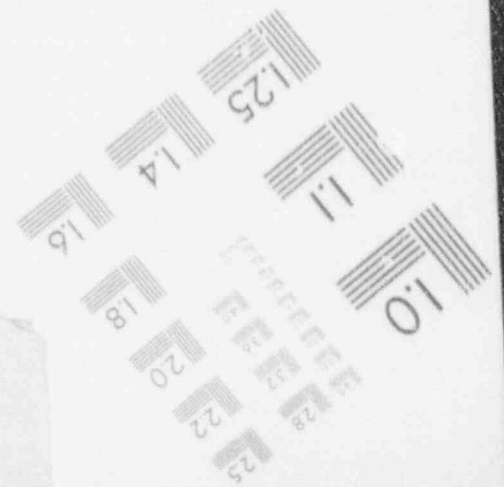
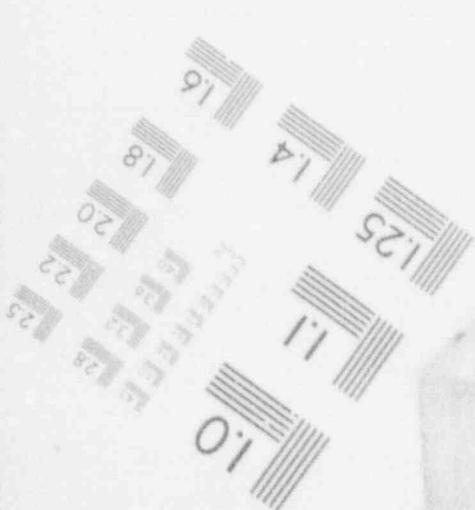
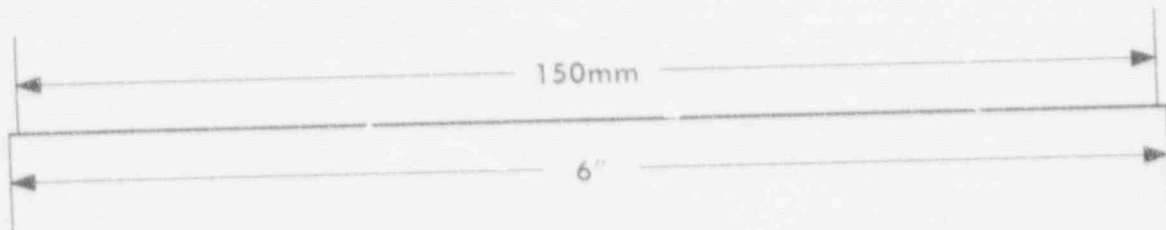
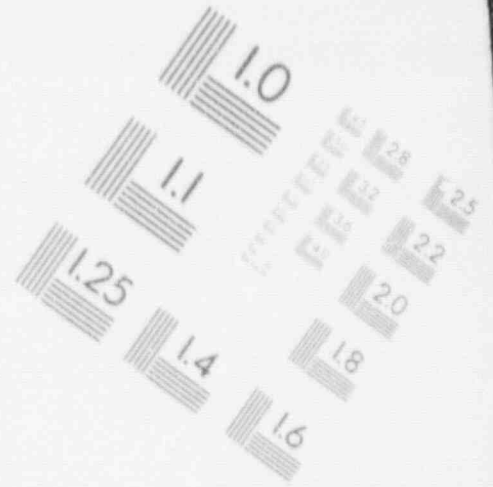
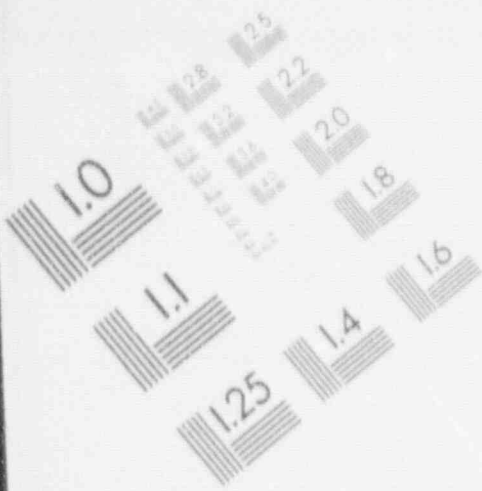
1

IMAGE EVALUATION TEST TARGET (MT-3)



1

IMAGE EVALUATION
TEST TARGET (MT-3)



NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 07-01-91
 To: 09-30-91

Permit Number: GA0004120

Discharge Location: 02B - Unit Two Cooling Tower Overflow To Storm Drains

Location:	Blowdown	Blowdown	Blowdown	Tower Disch.	Tower Disch.
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	FAC-avg.	Fac-max.	Total Time of TRC rel & TRC avg.	Zinc max.	Chromium max.
	(mg/l)	(mg/l)	(min.-mg/l)	(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:					
*06-03-91	--	--	--	<0.1	<0.1
08-14-91	--	--	--	<0.1	<0.1

Number of					
Samples:	0	0	0	2	2
Avg Value:	0	0	0	<0.1	<0.1
Max Value:	0	0	0	<0.1	<0.1
Min Value:	0	0	0	<0.1	<0.1
Limits					
Exceeded:	0	0	0	0	0

There was no sampling of this discharge location for FAC or TRC because there was no overflow of chlorinated water.

*EPD COMPLIANCE AUDIT CROSSCHECK SAMPLE.

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 07-01-91
 To: 09-30-91

Permit Number: GA0004120

Discharge Location: 02C - Unit Two Cooling Water Overflow

Location:	Blowdown	Blowdown	Blowdown	Tower Disch.	Tower Disch.
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	FAC-avg.	Fac-max.	Total Time of TRC rel & TRC avg.	Zinc max.	Chromium max.
	(mg/l)	(mg/l)	(min.-mg/l)	(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:	---	---	---	---	---

Number of					
Samples:	0	0	0	0	0
Avg Value:	0	0	0	0	0
Max Value:	0	0	0	0	0
Min Value:	0	0	0	0	0
Limits					
Exceeded:	0	0	0	0	0

There was no sampling of this discharge location for FAC or TRC because there was no overflow of chlorinated water.

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4545
Atlanta, Georgia 30302

From: 07-01-91
To: 09-30-91

Permit Number: GA0004120

Discharge Location: 01E - Low Volume Waste (Liquid Radwaste System
Unit One)

Type of Sample: Grab
Frequency of Analysis: 2/Mo

Code:	(530)	(550)
Parameter:	Suspended Solids mg/l	Oil & Grease mg/l
Limits:	Avg. 30 Max. 100	Avg. 15 Max. 20

Date:

07-02-91	8.0	4.0
07-15-91	16.5	0.6
08-06-91	0.2	0
08-19-91	2.8	0
09-02-91	4.3	0.7
09-16-91	3.5	1.8

Number of Samples:	6	6
Average Value:	5.88	1.18
Maximum Value:	16.5	4.0
Minimum Value:	0.2	0
Limits Exceeded:	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.H. Hatch
P.O. Box 4545
Atlanta, Georgia 30302

From: 07-01-91
To: 09-30-91

Permit Number: GA0004120

Discharge Location: 02E - Low Volume Waste (Liquid Wastewater System Unit Two)

Type of Sample: Grab
Frequency of Analysis: 2/Mo

Code:	(530)	(550)
Parameter:	Suspended Solids mg/l	Oil & Grease mg/l
Limits:	Avg. 30 Max. 100	Avg. 15 Max. 20

Date:

07-01-91	3.0	0
07-15-91	10.5	12.1
08-05-91	0.2	2.7
08-19-91	1.8	0.4
09-08-91	0.3	2.6
09-16-91	0.6	0.6

Number of Samples:	6	6
Average Value:	2.7	3.1
Maximum Value:	10.5	12.1
Minimum Value:	0.3	0
Limits Exceeded:	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 07-01-91
 To: 09-30-91

Permit Number: GA0004120

Discharge Location: 01 - Combined Plant Waste Streams Unit One

Frequency of Analysis: 1/Wk

Type of Samples: In Situ
 Parameter: Temperature
 Limits: Deg. F

Grab
 T.R.C.
 N/A

Grab
 F.A.C.
 N/A

Grab
 pH
 Min. 6.0
 Max. 9.0

Code: (11) (50060) (50064) (400)

Date:

07-01-91	87	.15	.15	6.9
07-08-91	88	<.1	<.1	7.7
07-15-91	93	.10	.14	7.0
07-22-91	87	<.1	.10	6.6
07-29-91	87	<.1	<.1	6.8
08-05-91	86	<.1	<.1	6.3
08-12-91	78	<.1	<.1	7.3
08-19-91	84	<.1	<.1	7.8
08-26-91	84	<.1	<.1	7.5
09-02-91	82	<.1	<.1	6.9
09-09-91	84	<.1	<.1	7.5
09-16-91	86	<.1	<.1	8.3
09-23-91	75	<.1	<.1	7.5
09-30-91	75	<.1	<.1	7.4

Number of Samples:	14	14	14	14
Average Value:	84	<.1	<.1	7.25
Maximum Value:	93	.15	.15	8.3
Minimum Value:	75	<.1	<.1	6.3
Limits Exceeded:	0	0	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 07-01-91
 To: 09-30-91

Permit Number: GA0004120

Discharge Location: 02 - Combined Plant Waste Streams Unit Two

Frequency of Analysis: 1/WK

Type of Samples: In Situ

Parameter: Temperature

Limits: Deg. F

Grab
 T.R.C.
 N/A

Grab
 F.A.C.
 N/A

Grab
 pH
 Min. 6.0
 Max. 9.0

Code: (11) (50060) (50064) (400)

Date:

07-01-91	89	.1	.2	8.0
07-08-91	86	<.1	<.1	7.9
07-15-91	90	<.1	<.1	7.1
07-22-91	91	<.1	.1	7.4
07-29-91	91	<.1	<.1	7.7
08-05-91	86	<.1	<.1	6.4
08-12-91	86	<.1	<.1	8.0
08-19-91	86	<.1	<.1	8.2
08-26-91	82	<.1	<.1	7.2
09-02-91	84	<.1	<.1	7.6
09-09-91	80	<.1	<.1	7.5
09-16-91	87	<.1	<.1	7.6
09-23-91	80	<.1	<.1	7.9
09-30-91	78	<.1	<.1	7.5

Number of Samples:	14	14	14	14
Average Value:	85	<.1	<.1	7.6
Maximum Value:	91	.1	.2	8.2
Minimum Value:	78	<.1	<.1	6.4
Limits Exceeded:	0	0	0	0

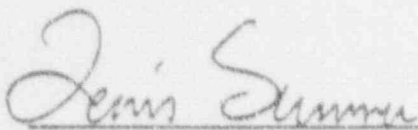
NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4545
Atlanta, Georgia 30302

From: 07-01-91
To: 09-30-91

Permit Number: GA0004120

I certify under the penalty of law that this document and all attachments were prepared under the 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.



H.L. SUMNER, JR.
GENERAL MANAGER
NUCLEAR PLANT

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4545
Atlanta, Georgia 30302

From: 07-01-91
To: 09-30-91

Permit Number: GA0004120

All values reported are subject to the analytical variability of the approved test procedures as follows:

<u>Parameter</u>	<u>Range</u>
BOD	+/- 0.9 mg/l
TSS	+/- 1.3 mg/l
O&G	+/- 1.8 mg/l
pH	+/- 0.05
Cr	+/- 0.03 mg/l
Zn	+/- 0.06 mg/l
Fe	+/- 0.05 mg/l
Mn	+/- 0.01 mg/l
Total P	+/- 0.003 mg/l
Temperature	+/- 0.9 F

Attachment 1

Unit One Circulating Water Sampling, Unit One Discharge Structure
During Period of Chlorination / Dechlorination

Date	U1 Flume Max NaOCl ppm		Discharge Structure Background ppm		Maximum Discharge ppm		Total Discharge TRC/Min.
	FAC	TRC	FAC	TRC	FAC	TRC	
08-28-91	1.6	1.6	<.1	.2	<.1	<.1	0
08-30-91	2.5	2.5	<.1	.1	<.1	<.1	0
09-01-91	2.0	2.5	<.1	<.1	<.1	<.1	0
09-03-91	1.6	2.5	<.1	<.1	<.1	<.1	0
09-05-91	1.6	2.5	<.1	.1	<.1	<.1	0
09-09-91	2.2	2.5	<.1	<.1	<.1	<.1	0
09-15-91	3.0	3.0	<.1	<.1	<.1	<.1	0

During chlorination / dechlorination samples were obtained in 15 minute intervals at the Discharge Structure to ensure that no chlorinated water was being discharged to the Altamaha River.

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

Chris M. Hobson
Manager,
Licensing and Compliance

January 21, 1992

Mr. D. M. Word
Chief, Water Protection Branch
205 Butler Street, S.E. - Room 1070
Atlanta, Georgia 30334

Dear Mr. Word:

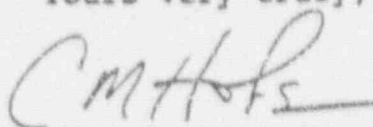
As required by the following NPDES Permits, we are submitting the Operation Monitoring Reports for each of the power plants for the quarter ending December 31, 1991.

PLANT ARKWRIGHT	-	NPDES PERMIT NO. GA 0026069
PLANT BOWEN	-	NPDES PERMIT NO. GA 0001449
PLANT BRANCH	-	NPDES PERMIT NO. GA 0026051
PLANT HAMMOND	-	NPDES PERMIT NO. GA 0001457
PLANT HATCH	-	NPDES PERMIT NO. GA 0004120
PLANT MCDON/ATK	-	NPDES PERMIT NO. GA 0001431
PLANT MCMANUS	-	NPDES PERMIT NO. GA 0003794
PLANT MITCHELL	-	NPDES PERMIT NO. GA 0001465
PLANT SCHERER	-	NPDES PERMIT NO. GA 0035564
PLANT VOGTLE	-	NPDES PERMIT NO. GA 0026786
WALLACE DAM	-	NPDES PERMIT NO. GA 0035581
PLANT WANSLEY	-	NPDES PERMIT NO. GA 0026778
PLANT YATES	-	NPDES PERMIT NO. GA 0001473
BARTLETT'S FERRY	-	NPDES PERMIT NO. GA 0001490
TALLULAH FALLS HYDRO	-	NPDES PERMIT NO. GA 0004162

While the information contained in this report is a true, accurate and complete presentation of measurements and analytical results observed, such information is subject to the inherent variabilities to make the measurements and results. Such variabilities and inaccuracies are not within the reasonable control of the permittee. The permittee reserves the right to claim all legal and equitable defenses available to it in connection with any exceedances reflected in this report. For these reasons, among others, this report should not be interpreted as an admission by the permittee of permit violations.

If you have questions or comments, please advise.

Yours very truly,



C. M. Hobson

GNG:KD
Enclosure

bc:	Messrs. C. K. McCoy	P. P. Boren	w/a
	J. T. Beckham	A. R. James	w/a
	C. L. Donaldson	K. M. Stefanini	w/a
	R. L. Boyer	J. M. Mostellar	w/a
	J. L. Conn	M. D. Kee	w/a
	H. L. Sumner w/a	W. B. Shipman	w/a
	J. R. Pope w/a	R. L. LeGrand	w/a
	W. E. Pitts w/a	B. R. Quick	w/a
	R. E. Leggett w/a	R. A. Pollock	w/a
	H. L. Beacher w/a	J. H. Jones	w/a
	W. C. Sewell w/a	W. C. Carr	w/a
	E. E. Joyner w/a	A. F. Reeves	w/a
	File 07-03-01		

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4545
Atlanta, Georgia 30302

From: 10-01-91
To: 12-31-91

Permit Number: GA0004120

Discharge Location: D1G - Low Volume Waste (Neutralisation Tank)

Type of Sample: Grab
Frequency of Analysis: 2/Mo

Code:	(530)	(550)
Parameter:	Suspended Solids mg/l	Oil & Grease mg/l
Limits:	Avg. 30 Max. 100	Avg. 15 Max. 20

Date:

10-08-91	3.8	<5
10-23-91	0	18.5
11-04-91	1.3	<5
11-19-91	3.3	<5
12-02-91	3.6	<5
12-16-91	4.6	<5

Number of Samples:	6	6
Average Value:	2.8	3.1
Maximum Value:	4.6	18.5
Minimum Value:	0	<5
Limits Exceeded:	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 10-01-91
 To: 12-31-91

Permit Number: GA0004120

Discharge Location: OIH - Low Volume Waste (Pressure Filters Backwash)

Type of Sample: Grab
 Frequency of Analysis: 1/Qtr

Code:	(530)	(550)
Parameter:	Suspended Solids mg/l	Oil & Grease mg/l
Limits:	Avg. 30 Max. 100	Avg. 15 Max. 20
Date:		
11-05-91 (A)	--	<5.0
11-05-91 (B)	--	<5.0
11-05-91 (C)	--	<5.0
11-05-91 (D)	--	<5.0
11-19-91 (A)	<1.0	--
11-19-91 (B)	<1.0	--
11-19-91 (C)	<1.0	--
11-19-91 (D)	<1.0	--
Number of Samples:	4	4
Average Value:	<1.0	<5.0
Maximum Value:	<1.0	<5.0
Minimum Value:	<1.0	<5.0
LIMITS EXCEEDED	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4545
Atlanta, Georgia 30302

From: 10-01-91
To: 12-31-91

Permit Number: GA0004120

Discharge Location: 01A - Cooling Tower Blowdown Unit One

Location:	Blowdown	Blowdown	Blowdown	Tower Basin	Tower Basin
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	FAC-avg.	FAC-max.	Total Time of TRC rel & TRC avg. (min.-mg/l)	Zinc max.	Chromium max.
	(mg/l)	(mg/l)		(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:					
*10-04-91	OOS	OOS	OOS	OOS	OOS
*10-09-91	OOS	OOS	OOS	OOS	OOS
*10-16-91	OOS	OOS	OOS	OOS	OOS
*10-23-91	OOS	OOS	OOS	OOS	OOS
*10-30-91	OOS	OOS	OOS	OOS	OOS
11-06-91	<.1	<.1	0	<.1	--
11-14-91	<.1	<.1	0	<.1	--
11-20-91	<.1	<.1	0	<.1	--
11-27-91	<.1	<.1	0	<.1	--
12-01-91	--	--	--	--	<.1
12-04-91	0.1	0.1	0	0.25	--
12-11-91	<.1	<.1	0	0.1	--
12-18-91	0.1	0.1	0	0.12	--
12-25-91	<.1	<.1	0	<.1	--
Number of					
Samples:	8	8	8	8	1
Avg Value:	<.1	<.1	0	<.1	<.1
Max Value:	0.1	0.1	0	0.25	<.1
Min Value:	<.1	<.1	0	<.1	<.1
Limits					
Exceeded:	0	0	0	0	0

*01A COOLING TOWER BLOWDOWN IS OOS DUE TO OUTAGE.

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4545
Atlanta, Georgia 30302

From: 10-01-91
To: 12-31-91

Permit Number: GA0004120

Discharge Location: 02A - Cooling Tower Blowdown Unit Two

Location:	Blowdown	Blowdown	Blowdown	Tower Basin	Tower Basin
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	FAC-avg.	Fac-max.	Total Time of TRC rel. & TRC avg. (min.-mg/l)	Zinc Max.	Chromium Max.
	(mg/l)	(mg/l)		(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:					
10-04-91	<0.1	<0.1	0	<0.1	--
10-07-91	--	--	--	--	<0.1
10-09-91	<0.1	<0.1	0	<0.1	--
10-16-91	<0.1	<0.1	0	<0.1	--
10-24-91	<0.1	<0.1	0	<0.1	--
10-30-91	<0.1	<0.1	0	<0.1	--
11-06-91	<0.1	<0.1	0	<0.1	--
*11-07-91	>2.0	>2.0	50	>2.0	--
11-14-91	<0.1	<0.1	0	<0.1	--
11-20-91	0.1	0.1	0	0.13	--
11-27-91	<0.1	<0.1	0	0.13	--
12-04-91	<0.1	<0.1	0	0.13	--
12-11-91	0.1	0.1	0	0.13	--
12-18-91	0.1	0.1	0	0.14	--
12-25-91	<0.1	<0.1	0	<0.1	--
Number of Samples:	14	14	14	14	1
Avg Value:	.15	.15	3.57	.19	<0.1
Max Value:	>2.0	>2.0	50	>2.0	<0.1
Min Value:	<0.1	<0.1	0	<0.1	<0.1
Limits Exceeded:	1	1	0	0	0

* SEE ATTACHMENT I

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4845
 Atlanta, Georgia 30302

From: 10-01-91
 To: 12-31-91

Permit Number: GA0004120

Discharge Location: 01B - Unit One Cooling Water Overflow

Location:	Blowdown	Blowdown	Blowdown	Tower Disch.	Tower Disch.
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	PAC-avg.	Pac-max.	Total Time of TRC rel & TRC avg. (min.-mg/l)	Zinc max.	Chromium max.
	(mg/l)	(mg/l)		(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:					
12-01-91	--	--	--	<.1	<.1

Number of					
Samples:	0	0	0	1	1
Avg Value:	--	--	--	<.1	<.1
Max Value:	--	--	--	<.1	<.1
Min Value:	--	--	--	<.1	<.1
Limits					
Exceeded:	0	0	0	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hetch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 10-01-91
 To: 12-31-91

Permit Number: GA0004120

Discharge Location: 02B - Unit Two Cooling Tower Overflow To Storm
 Drains

Location:	Blowdown	Blowdown	Blowdown	Tower Disch.	Tower Disch.
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	PAC-avg.	Pac-max.	Total Time of TRC rel & TRC avg. (min.-mg/l)	Zinc max.	Chromium max.
	(mg/l)	(mg/l)	(min.-mg/l)	(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:					
12-01-91	--	--	--	<0.1	<0.1

Number of					
Samples:	0	0	0	1	1
Avg Value:	0	0	0	<0.1	<0.1
Max Value:	0	0	0	<0.1	<0.1
Min Value:	0	0	0	<0.1	<0.1
Limits					
Exceeded:	0	0	0	0	0

NFDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 10-01-91
 To: 12-31-91

Permit Number: GA0004120

Discharge Location: 02C - Unit Two Cooling Water Overflow

Location:	Blowdown	Blowdown	Blowdown	Tower Disch.	Tower Disch.
Type:	Mltpl Grab	Mltpl Grab	Mltpl Grab	Grab	Grab
Frequency:	1/Wk/Unit	1/Wk/Unit	1/Wk/Unit	1/Qtr	1/Qtr
Parameter:	FAC-avg.	Fac-max.	Total Time of TRC rel & TRC avg. (min.-mg/l)	Zinc max.	Chromium max.
	(mg/l)	(mg/l)	(min.-mg/l)	(mg/l)	(mg/l)
Limits:	0.2	0.5	120	1.0	0.2
Codes:	50064	50064	81400-50060	1092	1034
Date:					
12-01-91	--	--	--	<0.1	<0.1

Number of					
Samples:	0	0	0	1	1
Avg Value:	0	0	0	<0.1	<0.1
Max Value:	0	0	0	<0.1	<0.1
Min Value:	0	0	0	<0.1	<0.1
Limits				<0.1	<0.1
Exceeded:	0	0	0	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 10-01-91
 To: 12-31-91

Permit Number: GA0004120

Discharge Location: OLE - Low Volume Waste (Liquid Radwaste System Unit One)

Type of Sample: Grab
 Frequency of Analysis: 2/Mo

Code:	(530)	(550)
Parameter:	Suspended Solids mg/l	Oil & Grease mg/l
Limits:	Avg. 30 Max. 100	Avg. 15 Max. 20

Date:

10-07-91	0.19	2.86
10-21-91	0	4.83
11-04-91	12.5	7.79
11-18-91	32.0	8.61
12-02-91	1.5	0.09
12-17-91	57.0	18.0

Number of Samples:	6	6
Average Value:	17.20	7.03
Maximum Value:	57.0	18.0
Minimum Value:	0	0.09
Limits Exceeded:	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 10-01-91
 To: 12-31-91

Permit Number: GA0004120

Discharge Location: 02E - Low Volume Waste (Liquid Radwaste System Unit Two)

Type of Sample: Grab
 Frequency of Analysis: 2/Mo

Code:	(530)	(550)
Parameter:	Suspended Solids mg/l	Oil & Grease mg/l
Limits:	Avg. 30 Max. 100	Avg. 15 Max. 20

Date:

10-08-91	7.14	0
10-21-91	1.07	4.55
11-04-91	2.84	0.59
11-18-91	0.57	1.55
12-02-91	0.68	1.13
12-16-91	0.20	0

Number of Samples:	6	6
Average Value:	2.08	1.30
Maximum Value:	7.14	4.55
Minimum Value:	0.2	0
Limits Exceeded:	0	0

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 10-01-91
 To: 12-31-91

Permit Number: GA000412C

Discharge Location: 01 - Combined Plant Waste Streams Unit One

Frequency of Analysis: 1/WX

Type of Samples:	In Situ	Grab	Grab	Grab
Parameter:	Temperature	T.R.C.	F.A.C.	pH
Limits:	Deq. F	N/A	N/A	Min. 6.0 Max. 9.0

Code:	(11)	(50060)	(50064)	(400)
-------	------	---------	---------	-------

Date:

10-07-91	69	<0.1	<0.1	7.5
10-14-91	71	<0.1	<0.1	6.9
10-21-91	69	<0.1	<0.1	7.7
10-28-91	70	<0.1	<0.1	7.2
11-04-91	57	<0.1	<0.1	7.7
11-11-91	53	<0.1	<0.1	7.8
11-18-91	68	<0.1	<0.1	7.8
11-25-91	51	<0.1	<0.1	7.8
12-02-91	80	<0.1	<0.1	8.3
12-09-91	78	<0.1	<0.1	7.4
12-16-91	69	<0.1	<0.1	7.4
12-23-91	75	<0.1	<0.1	7.8
*12-30-91	57	1.2	1.4	7.6

Number of Samples:	13	13	13	13
Average Value:	66.7	<0.1	.11	7.61
Maximum Value:	80	1.2	1.4	8.3
Minimum Value:	51	<0.1	<0.1	6.9
Limits Exceeded:	0	0	0	0

* SEE ATTACHMENT II

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
 Plant E.I. Hatch
 P.O. Box 4545
 Atlanta, Georgia 30302

From: 10-01-91
 To: 12-31-91

Permit Number: GA0004120

Discharge Location: 02 - Combined Plant Waste Streams Unit Two

Frequency of Analysis: 1/Wk

Type of Samples:	In Situ	Grab	Grab	Grab
Parameter:	Temperature	T.R.C.	P.A.C.	pH
Limits:	Deg. F	N/A	N/A	Min. 6.0 Max. 9.0

Code:	(11)	(50060)	(50064)	(400)
-------	------	---------	---------	-------

Date:

10-07-91	77	<0.1	<0.1	7.7
10-14-91	69	<0.1	<0.1	7.2
10-21-91	75	<0.1	<0.1	7.9
10-28-91	79	<0.1	<0.1	7.5
11-04-91	68	<0.1	<0.1	8.0
11-07-91	66	<0.1	<0.1	7.8
11-11-91	66	<0.1	<0.1	8.6
11-18-91	60	<0.1	<0.1	7.6
11-25-91	66	<0.1	<0.1	7.9
12-02-91	70	<0.1	<0.1	7.7
12-09-91	66	<0.1	<0.1	7.5
12-16-91	64	<0.1	<0.1	7.5
12-23-91	62	<0.1	<0.1	7.9
12-30-91	62	<0.1	<0.1	7.5

Number of Samples:	14	14	14	14
Average Value:	67.9	<0.1	<0.1	7.7
Maximum Value:	79	<0.1	<0.1	8.6
Minimum Value:	60	<0.1	<0.1	7.2
Limits Exceeded:	0	0	0	0


NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4345
Atlanta, Georgia 30302

From: 07-01-91
To: 09-30-91

Permit Number: GA0004120

I certify under the penalty of law that this document and all attachments were prepared under the 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.


H.L. SUMNER, JR.
GENERAL MANAGER
NUCLEAR PLANT

NPDES: OPERATION MONITORING REPORT

Georgia Power Company
Plant E.I. Hatch
P.O. Box 4545
Atlanta, Georgia 30302

From: 07-01-91
To: 09-30-91

Permit Number: GA0004120

All values reported are subject to the analytical variability of the approved test procedures as follows:

PARAMETER	RANGE
BOD	+/- 0.9 mg/l
TSS	+/- 1.3 mg/l
O&G	+/- 1.8 mg/l
pH	+/- 0.05
Cr	+/- 0.03 mg/l
Zn	+/- 0.06 mg/l
Pb	+/- 0.05 mg/l
Mn	+/- 0.01 mg/l
Total P	+/- 0.003 mg/l
Temperature	+/- 0.9 F

PLANT E.I. HATCH NPDES LOG

DATE /TIME EVENT BEGAN	ANTICIPATED OR ACTUAL DATE/ TIME CEASES	APPROX. FLOW RATE	CAUSE AND ACTION TAKEN TO REDUCE/ELIMINATE /PREVENT, RECURRENCE	SAMPLES TAKEN	SAMPLE RESULTS
11/07/91 @ 0800 EST	11/07/91 @ 0850 EST	Unknown	During routine chlorination of the Unit 2 Circ Mate. system chlorinated water was discharged to the river as a result of the Unit 2 cooling tower blowdown valve torque switch failure. This allowed chlorinated water to be discharged at the discharge structure. After the valve was determined to have failed, the valve was manually closed. Since this incident the valve torque switch has been repaired. This incident was reported to the GA EPD via written report on 11/12/91.	Yes	TRC 2.0 EAC 2.0

PLANT MANAGER

Chris Simon

ATTACHMENT 2

PLANT E.I. HATCH

NPDES LOG

DATE /TIME EVENT BEGAN	ANTICIPATED OR ACTUAL DATE/ TIME CEASES	APPROX. FLOW RATE	CAUSE AND ACTION TAKEN TO REDUCE/ELIMINATE /PREVENT, RECURRENCE	SAMPLES TAKEN	SAMPLES RESULTS
12/30/91 @0730	12/30/91 @1000	Unknown	During a weekly sampling of the Discharge Structure it was indicated that chlorinated water was being discharged. The reason for the discharge was determined to be a failed plant service water chlorine addition valve. Due to the failure, the Unit 1 Service water system was receiving an unintentional chlorine treatment. An Event review was performed on this incident and measures will be taken to alleviate this from occurring again. This incident was reported to the State EPD via a written report.	yes	TRC 1.4ppm FAC 1.2ppm

PLANT MANAGER

David Sumner

ENCLOSURE 3
1991 FLOW MONITORING AND CHARACTERIZATION STUDY

Georgia Power Company
333 Piedmont Avenue
Atlanta, Georgia 30308
Telephone 404 526-6525

Mailing Address
Post Office Box 4545
Atlanta, Georgia 30302



Georgia Power

the southern electric system

Chris M. Hobson
Manager,
Licensing and Compliance

January 21, 1992

NPDES PERMIT REQUIREMENTS

Flow Monitoring and Characterization Studies
Annual Priority Pollutant Certification

Mr. Lawrence W. Hedges
Program Manager
Industrial Waste Water Program
205 Butler Street, S. E., Room 1070
Atlanta, Georgia 30334

Dear Mr. Hedges:

As required by the following NPDES Permits, attached are the subject studies for the referenced plants:

Plant Arkwright	- NPDES Permit No. GA 0026069
Plant Bowen	- NPDES Permit No. GA 0001449
Plant Branch	- NPDES Permit No. GA 0026051
Plant Hammond	- NPDES Permit No. GA 0001457
Plant Hatch	- NPDES Permit No. GA 0004120
Plant Vogtle	- NPDES Permit No. GA 0026786
Plant Mitchell	- NPDES Permit No. GA 0001465
Plant Wansley	- NPDES Permit No. GA 0026778
Plant Yates	- NPDES Permit No. GA 0001473

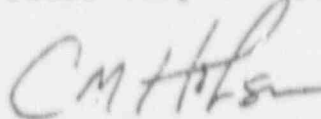
The flow study for Plant McDonough/Atkinson (NPDES Permit No. 0001431) has not yet been completed due to technical problems and unit outages. The required report will be submitted as soon as it is available.

In accordance with the provisions of the following NPDES permits, Georgia Power Company certifies that no priority pollutants, other than chromium or zinc are present in detectable amounts in the cooling water discharges of the referenced plants. This certification is based on manufacturer's certification for their products and this certification applies to pollutants present as a result of their presence in water treatment chemicals added by Georgia Power Company and not their presence in raw water supplies.

Plant Bowen	- NPDES Permit No. GA 0001449
Plant Wansley	- NPDES Permit No. GA 0026778
Plant Yates	- NPDES Permit No. GA 0001473
Plant Hatch	- NPDES Permit No. GA 0004120
Plant Vogtle	- NPDES Permit No. GA 0026786

If you have any questions or comments, please advise.

Yours very truly,



C. M. Hobson

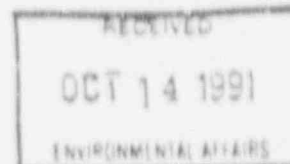
GNG:el
Attachments

cc: C. L. McCoy
J. T. Beckham
J. L. Conn
L. L. Boyer
C. L. Donaldson
P. P. Boren w/a
A. R. James w/a
K. M. Stefanini w/a
J. M. Mostellar w/a
A. P. Reeves w/a
M. D. Kee w/a
H. L. Sumner
R. E. Leggett w/a
W. C. Sewell w/a
J. H. Jones w/a
W. B. Shipman w/a
W. C. Carr w/a
W. C. Philips w/a
POW 07-02-01-00 w/a
POW 07-02-02-00 w/a
POW 07-02-03-00 w/a
POW 07-02-04-00 w/a
POW 07-02-05-00 w/a
POW 07-02-07-00 w/a
POW 07-02-09-00 w/a
POW 07-02-11-00 w/a
POW 07-02-12-00 w/a
POW 07-02-13-02 w/a

PLANT E.I. HATCH

NPDES FLOW CHARACTERIZATION STUDY

1991

INTRODUCTION

This flow study was performed in accordance with Part III, Section B.9, of the Georgia Power Company, E.I. Hatch Nuclear Generating Facility, National Pollutant Discharge Elimination System, (NPDES), Permit No. GA 0004120; issued by the State of Georgia, Department of Natural Resources, Environmental Protection Division, on January 29, 1988.

BACKGROUND

This study was conducted on the NPDES permitted waste streams using data collected during the time period of June 24 to July 7, 1991. A description of the waste streams are as follows:

1. NON-CONTACT COOLING

This system consisted of discharges from the Plant Auxiliary Heat Exchangers and the Diesel Generator Cooling.

The Plant Auxiliary Cooling Systems consisted of heat exchangers located in the control, radwaste, reactor, turbine and waste gas buildings. This system was supplied by the plant service water system and discharges into the circulating water system (cooling towers) to provide make-up water. Flow rates were calculated using pump name plate data.

The diesel generator cooling water system was supplied by the plant service water system and discharges to the discharge structure mixing chamber via the radwaste discharge line. This system was used for cooling the emergency diesel generators. The diesel generators for Unit One, (1A and 1C), normally had a continuous flow of cooling water regardless of their operational status. Unit One's diesel generator (1B) and Unit Two's diesel generators, (2A and 2C), were supplied with cooling water only during system operation; which consisted of testing and emergencies. Flow rates and measurements were calculated using pump name plate data.

2. LOW VOLUME WASTE (NEUTRALIZATION TANK) 01G

This waste stream consisted of demineralizer regeneration waste composed of sulfuric acid, sodium hydroxide and rinse water. All regenerative waste was collected in a sump and recirculated into a 38,000 gallon above-ground tank until the pH was between 6 and 9. Chemical addition for pH adjustment was possible, if necessary. The neutralization tank was discharged via gravity into the Unit One mixing chamber. The maximum flow rate achievable was calculated using the volume of the tank and the radius of the discharge pipe. The daily average flow rate was calculated by dividing the total volume discharged by the total minutes in the test period. The flow rate measurements of this system were based on its calculated maximum flow rates and discharge duration.

3. LOW VOLUME WASTE (PRESSURE FILTER BACKWASH) 01H
This waste stream consisted of backwash water originating from four pressure sand filters that preceded the demineralizer unit. The backwash waste gravity drained into the neutralization tank discharge line. The maximum flow rate achievable was based on the backwash pump name plate data. The daily average flow rate was calculated by using backwash flow rate data and operating times during the test period. The flow rate measurements of this system were based on flow indicators for each pressure filter.
4. COOLING TOWER BLOWDOWN (UNIT ONE) 01A
This waste stream consisted of discharges from the Unit One closed-loop circulating water system. Make-up water for this system was derived from non-contact auxiliary plant cooling water. The discharge originated at the circulating water pumps discharge and was routed to the Unit One mixing chamber. The maximum flow rate achievable was based on the total pumping capacity of the plant service water system. The daily average flow rate was calculated using the difference between the Unit One mixing chamber flow rates and the other Unit One waste streams. The flow rate measurements of this system were based on mathematical computations relating this waste stream to all the others that were applicable.
5. COOLING TOWER BLOWDOWN (UNIT TWO) 02A
This waste stream consisted of discharges from the Unit Two closed-loop circulating water system. Make-up water for this system was derived from the non-contact auxiliary plant cooling water. The discharge originated at the circulating water pumps discharge and was routed to the Unit Two mixing chamber. The maximum flow rate achievable was based on the total pumping capacity of the plant service water system. The daily average flow rate was calculated using the difference between the Unit Two mixing chamber flow rates and the other Unit Two waste streams. The flow rate measurements of this system were based on mathematical computations relating this waste stream to all the others that were applicable.
6. COOLING WATER OVERFLOW (UNIT ONE) 01B
This waste stream consisted of discharges from the closed-looped circulating water system. Make-up water for the system originated from the non-contact auxiliary plant cooling water system. The discharge originated at the Unit One cooling tower flume and was routed to the Unit One mixing chamber. The maximum flow rate achievable was based on the total pumping capacity of the plant service water system. The daily average flow rate was calculated by dividing the total gallons discharged by the total minutes in the test period. The flow rate measurements of this stream were based on the best conservative estimate at the time of subsequent discharge.

NOTE: This waste stream was permitted for use in lieu of outfall number 01A.

7. COOLING WATER OVERFLOW TO STORM DRAINS (UNIT TWO) 02B

This waste stream consisted of discharges from the closed-looped circulating water system. Make-up water for the system originated from the non-contact auxiliary plant cooling water system. The discharge originated at the Unit Two cooling tower basins and was routed to storm drains, then to the river. The maximum flow rate achievable was based on the total pumping capacity of the plant service water system. The daily average flow rate was calculated by dividing the total gallons discharged by the total minutes in the test period. The flow rate measurements of this stream were based on the best conservative estimate at the time of subsequent discharge.

NOTE: This waste stream was permitted for use in lieu of outfall number 02A.

8. COOLING WATER OVERFLOW (UNIT TWO) 02C

This waste stream consisted of discharges from the closed-looped circulating water system. Make-up water for the system originated from the non-contact auxiliary plant cooling water system. The discharge originated at the Unit Two cooling tower flume and was routed to the Unit Two mixing chamber. The maximum flow rate achievable was based on the total pumping capacity of the plant service water system. The daily average flow rate was calculated by dividing the total gallons discharged by the total minutes in the test period. The flow rate measurements of this stream were based on the best conservative estimate at the time of subsequent discharge.

NOTE: This waste stream was permitted for use in lieu of outfall number 02A.

9. LOW VOLUME WASTE (LIQUID RADWASTE SYSTEM, UNIT ONE) 01E

This waste stream consisted of waste water generated primarily in the reactor and turbine buildings. Examples of the waste water sources were floor drains, laundry drains, laboratory drains, seal cooling waters and bearing cooling waters. The collective waste was filtered and demineralized then discharged to the Unit One mixing chamber or reused in-plant depending on the chemical and radiological quality. The maximum flow rate achievable was derived from the pump name plate data. The average daily flow was calculated by dividing the total volume discharged by the total minutes in the test period. The flow rate measurements of this stream were based on integrator readings and discharge duration.

10. LOW VOLUME WASTE (LIQUID RADWASTE SYSTEM, UNIT TWO) 02E

This waste stream consisted of waste water generated primarily in the reactor and turbine buildings. Examples of the waste water sources were floor drains, laboratory drains, seal cooling waters and bearing cooling waters. The collective waste was filtered and demineralized, then discharged to the Unit Two mixing chamber or reused in-plant depending on the chemical and radiological quality. The maximum flow rate achievable was derived from the pump name plate data. The average daily flow was calculated by dividing the total volume discharged by the total minutes in the test period. The flow rate measurements of this stream were based on integrator readings and discharge duration.

11. COMBINED WASTE STREAMS (UNIT ONE) 01
This waste stream consisted of the total volume of all liquid waste being discharged from Unit One. The maximum flow rate was achieved using the total surface water pumping capacity on plant site. The daily average discharge was calculated from the Unit One daily discharge flow rates during the test period. The flow rate measurements were based on readings obtained from flow rate strip charts.
12. COMBINED WASTE STREAMS (UNIT TWO) 02
This waste stream consisted of the total volume of all liquid waste being discharged from Unit Two. The maximum flow rate was achieved using the total surface water pumping capacity on plant site. The daily average discharge was calculated from the Unit Two daily discharge flow rates during the test period. The flow rate measurements were based on readings obtained from flow rate strip charts.
13. INTAKE SCREEN BACKWASH 03
This waste stream consisted of river water being used continuously to backwash the plant's traveling water intake screen. The river water used to backwash the intake screen was gravity fed back to the river. The maximum flow rate achievable was based on the total pumping capacity of the plant service water system for both units. The daily average flow rate was calculated by dividing the total test period. The flow rate measurements were based on the constant backwash from the plant service water system and the engineering data review of the backwash pump name plate data.
14. 2P65 CHILLER WATER BLOWDOWN 04
This waste stream consisted of discharges from the Unit Two Reactor Building and the Radwaste Building closed-loop circulating water systems. Make-up water for this system originated from the plant sanitary water system. The maximum flow rate achievable was calculated using the pump name plate data. The daily average flow rate was calculated by dividing the total gallons of water discharged by the total minutes in the test period. The flow rate measurements were based on engineering data reviews.
15. SEWAGE TREATMENT EFFLUENT 01F
This waste stream consisted of the plant domestic sewage waste that was created by two aeration package treatment plants. Discharge from this facility was routed to the Unit One mixing chamber. The maximum flow rate achievable was calculated using the designed capacity of the aeration plants. The daily average flow rate was calculated by dividing the total gallons of water discharged by the total minutes in the test period. The flow rate measurements were based on readings obtained from a flow rate strip chart.

PLANT F.I.L. HATCHWASTEWATER FLOW CHARACTERIZATION STUDY (CON'T)

1991

TABLE

<u>WASTEWATER STREAM NUMBER AND NAME</u>	<u>MAXIMUM (gpm)</u>	<u>DAILY/AVG (gpm)</u>
Non-Contact Cooling Water (Diesel Generator Cooling)	3,500	1,410 (a)
Non-Contact Cooling Water (Plant Auxiliary Systems)	68,000	45,000 (i)
01G Low Volume Waste (Neutralization Tank)	650	9 (b)
01H Low Volume Waste (Pressure Filter Backwash)	1,050	2 (c)
01A Cooling Tower Blowdown (Unit One)	34,000 (f)	15,822
02A Cooling Tower Blowdown (Unit Two)	34,000 (f)	8,000
01B Cooling Water Overflow (Unit One)	34,000 (f)	0
02B Cooling Tower Overflow to Storm Drains (Unit Two)	34,000 (f)	0
02C Cooling Water Overflow (Unit Two)	34,000 (f)	0
01E Low Volume Waste, Liquid Radwaste (Unit One)	100	12 (d)
02E Low Volume Waste, Liquid Radwaste (Unit Two)	100	7 (e)
01 Combined Plant Waste Streams (Unit One)	50,000	15,900
02 Combined Plant Waste Streams (Unit Two)	50,000	8,000
03 Intake Screen Backwash	68,000	412 (g)
04 2P65 Chiller Water Blowdown	500	5 (h)
01F Sewage Treatment Plant	50	8

PLANT E.I. HATCH

NPDES FLOW CHARACTERIZATION STUDY (CON'T)

1991

FOOTNOTES

- (a) The daily average flow rate for cooling water for the diesel generators 1,400 gpm. However, during the flow study test period, the diesels operated only 4.0 hours.
- (b) During the sample period, 174,400 gallons were discharged in 7 batches at a rate of 650 gpm. The total discharge time during the two week period was 4.5 hours.
- (c) Actual backwash time during the two week period was 40 minutes at a rate of 710 gpm and 40 minutes at a rate of 250 gpm.
- (d) During the sample period, 243,160 gallons of waste water were discharged from the Unit One mixing chamber at an average rate of 65.6 gpm for 61.8 hours.
- (e) During the sample period, 139,109 gallons of waste water were discharged from the Unit Two mixing chamber at an average rate of 58.8 gpm for 39.4 hours.
- (f) This figure reflects the total surface water withdrawal capabilities at the plant consisting of service water capacity of 68,000 gpm and residual heat removal (RHR) piping capacity of 16,000 gpm. RHR is used primarily during plant shutdown.
- (g) Under normal operating conditions, the Intake Screen Backwash discharges at a daily average rate of 412 gpm.
- (h) Under normal operating conditions, the 2P65 Chiller Water Blowdown discharges at a daily average rate of 5 gpm.
- (i) Under normal operating conditions, the Unit One Plant Auxiliary System uses approximately 22,000 gpm and under normal operating conditions, the Unit Two Plant Auxiliary System uses approximately 21,250 gpm.

PLANT E.I. HATCH

NPDES FLOW CHARACTERIZATION STUDY (CON'T)

1991

WATER TREATMENT CHEMICAL INVENTORY

This is a list of the chemicals used at Plant Edwin I. Hatch for the purpose of water treatment:

1. ALS-345-220 Corrosion Inhibitor
2. Borax
3. Boric Acid
4. Ortho-Phosphate
5. Sanuril 115 (Calcium Hypochlorite)
6. Sodium Hydroxide
7. Sodium Hypochlorite
8. Sodium Nitrite
9. Sodium Pentaborate
10. Sulfuric Acid

PLANT E. I. HATCH NPDES FLOW CHARACTERIZATION STUDY

