



Carolina Power & Light Company

APR 01 1993

SERIAL: NLS-93-060

United States Nuclear Regulatory Commission  
ATTENTION: Document Control Desk  
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62

NPDES PERMIT NONCOMPLIANCE

Gentlemen:

By letter dated April 26, 1983, Carolina Power & Light Company (CP&L) agreed to keep the NRC informed of changes and/or violations to the Brunswick Steam Electric Plant's (BSEP) National Pollutant Discharge Elimination System (NPDES) permit requiring notification to the permit agency. Enclosed are copies of reports made to the North Carolina Division of Environmental Management during 1992 concerning noncompliances with NPDES Permit No. NC0007064 of the BSEP, Units 1 and 2.

Also enclosed is NPDES Permit No. NC0007064, issued by the State of North Carolina Department of Environment, Health, and Natural Resources, Division of Environmental Management on February 15, 1993. This permit authorizes CP&L to continue to discharge wastewater at the BSEP facility in accordance with effluent limitations, monitoring requirements, and other conditions set forth in the permit. Permit No. NC0007064 became effective March 1, 1993 and shall expire at midnight on June 30, 1996. The intent of the new permit is the same as the previous permit; that is, protect the water quality that passes through the BSEP. There were no major changes in the scope of the permit; however, the following changes to the permit are noted: 1) annual priority pollutant analysis sample added to the low-volume waste sources, 2) certified operator requirements under Section C were expanded, 3) flow measurements under Section D now include calibration and deviation limitations, and 4) other minor changes.

Please refer any questions concerning this submittal to Mr. D. B. Waters at (919) 546-3678.

Yours very truly,

*For David C. McCarthy*

David C. McCarthy

Manager

Nuclear Licensing Section

DJK/jbw

Enclosures

cc: Mr. S. D. Ebnetter  
Mr. P. D. Milano  
Mr. R. L. Prevatte

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PDR ADOCK 05000324  
S PDR

060

411 Fayetteville Street • P. O. Box 1551 • Raleigh, N. C. 27602

(1938BNP)

SUMMARY OF NPDES NONCOMPLIANCES  
FEBRUARY 1992

BRUNSWICK STEAM ELECTRIC PLANT

Fine Mesh Screen Noncompliance

The Brunswick Steam Electric Plant NPDES Permit (NC 0007064) requires the operation of three fine mesh screened circulating water intake pumps (CWIPs) when three or more CWIPs are in service on a generating unit. On February 6, 1992, the Unit 2 circulating water system was operated with two fine mesh and one coarse mesh screened CWIPs in service for 1 hour and 20 minutes.

At 0820, February 6, 1992, Unit 2 was in startup with the 2A and 2C CWIPs in service. The 2C CWIP, with coarse mesh screen was placed in service at that time. At 0940, the operator realized that he had started a CWIP with a coarse mesh screen and shut down the 2C pump. The 1B pump was placed in service at that time.

ATTACHMENT TO  
BRUNSWICK STEAM ELECTRIC PLANT  
NPDES REPORT FOR MARCH 1992

Fine Mesh Screen Noncompliance

On March 9 and 10, 1992, the Brunswick Steam Electric Plant operated with two fine mesh and one coarse mesh screened circulating water intake pumps (CWIPs) in service. NPDES permit number NC0007064 requires the operation of three fine mesh screened CWIPs when three or more CWIPs are in service.

At 1400, March 9, 1992, the 1B CWIP with fine mesh screen was shut down due to thermal trips of the lube oil pump and lube oil cooler fan. The 1C CWIP with coarse mesh screen was started at this time. The 1B was returned to service at 0212, March 10, 1992, after maintenance work and testing was completed. The 1CCWIP was then taken out of service.

**SUMMARY OF NPDES NONCOMPLIANCES  
JULY 1992**

**BRUNSWICK STEAM ELECTRIC PLANT**

Circulating Water Intake Pump Failure

The Brunswick Steam Electric Plant NPDES permit (NC0007064) requires the operation of three fine mesh screened circulating water intake pumps (CWIPs) when three or more CWIPs are in service per unit. At the end of June 1992 the Brunswick Plant experienced an electrical malfunction of the 2D pump, equipped with a fine meshed screen. As a result, when a third pump was needed, it was necessary to operate the 2C CWIP with coarse meshed screen occasionally during the month of July 1992, while repairs were underway on the third fine mesh screened pump (2D). Increased clogging of the debris filters required the third pump to be operated in order to obtain the required flow.

Mr. Jim Bushardt of the NC-DEM Wilmington Regional Office provided verbal approval to operate the Unit 2 coarse mesh screened pump in order to properly balance flows for application of the ClamTrol biocide, per telephone conversation with Mr. Cam Wheeler of CP&L on July 22, 1992.

Every effort was made to minimize the use of the coarse mesh screened pump while the 2D pump was out of service. A vendor maintenance crew was called in for repairs to promptly return the 2D pump to operation and discontinue the use of the 2C pump. The 2C pump was operated for a total of 90 hours and 44 minutes during July. This period is less than the 7 days per 3 month period referenced in the permit for preventative maintenance.

SUMMARY OF NPDES NONCOMPLIANCES  
AUGUST 1992

BRUNSWICK STEAM ELECTRIC PLANT

Circulating Water Intake Pump Failure

At the end of June 1992 the Brunswick Plant experienced an electrical malfunction of the 2D circulating water intake pump, equipped with a fine meshed screen. As a result, when a third pump was needed, it was necessary to operate the 2C pump, with coarse meshed screen, occasionally while repairs were underway on the third fine mesh screened pump (2D).

A vendor maintenance crew was called in for repairs to return the 2D pump to operation and discontinue the use of the 2C pump. The 2D pump was repaired on August 10. The 2A pump was out of service on August 24 to repair a broken sprocket. It was necessary to operate the 2C pump on August 4, 25, and 26.

Surge Tank Overflow

On August 20, 1992, approximately 50 gallons of rain water and some sewage was observed around the surge tank. It was determined that the cause of the overflow was a tripped surge tank pump, which could have been caused by heavy rains that had occurred in the area. The lift station that was flooding the surge tank was immediately secured and the use of the restroom facilities were terminated. The pump was returned to service and the rain water and sewage overflow was placed back into the surge tank. The area was disinfected as a precaution.

**SUMMARY OF NPDES NONCOMPLIANCES  
SEPTEMBER 1992**

**BRUNSWICK STEAM ELECTRIC PLANT**

Circulating Water Intake Pump Failures

The 1D circulating water intake pump (CWIP) equipped with coarse mesh screen was operated for 2 hours and 30 minutes on September 30, 1992, to support operational activities while two of the fine mesh screened pumps on unit 1 were down for repairs. The 1C CWIP experienced a ground fault problem which caused the pump to fail when rain caused it to ground out. The 1B CWIP was out of service to repair a broken linkage of the rotating screen chain.

The 2C coarse mesh screened pump on unit 2 was operated for 25 hours and 24 minutes during the period of September 21 - 23, 1992, to support operational activities while two of the fine mesh screened pumps were being repaired. The 2D CWIP was out of service because of cooler fan problems. The 2A CWIP required a trash rack repair.

These repairs were completed and the coarse mesh screened pumps were taken out of service.

Extended Operation of Coarse Mesh Screened CWIP

On September 9, 1992, at 0835 hours, an operator turned on the 2C CWIP (equipped with coarse mesh screen) for backwashing purposes and left the pump in operation for a total of 69 hours and 15 minutes, until it was discovered and turned off at 0550 hours on September 12, 1992.

SUMMARY OF NPDES NONCOMPLIANCES  
OCTOBER 1992

BRUNSWICK STEAM ELECTRIC PLANT

Circulating Water Intake Pump Repairs

The 1D circulating water intake pump (CWIP) equipped with coarse mesh screen was operated for 108 hours on October 1 - 5, 1992, to support operational activities while two of the fine mesh screened pumps on Unit 1 were down for repairs. The 1C CWIP was out of service to repair a ground fault problem. The 1B CWIP was out of service for repairs to its traveling screen.

Sewage Treatment Plant Effluent Exceedance

As reported to Jim Bushart of the Wilmington Regional Office on October 14, 1992, the total suspended solids on the sewage treatment plant effluent exceeded the weekly maximum limit of 45 mg/l on three consecutive days; however, the monthly average for the plant was well below the monthly average limit of 30 mg/l. Hydraulic overloading of the plant is believed to have caused the upset.

CAROLINA POWER & LIGHT COMPANY  
NUCLEAR NPDES EFFLUENT SUMMARY  
NOVEMBER 1992

BRUNSWICK STEAM ELECTRIC PLANT

Fine Mesh Screen Operation (Noncompliance Occurrence)

The 1D circulating water intake pump (CWIP) equipped with coarse mesh screen operated for 6 hours and 45 minutes on November 25, 1992, while divers cleaned its screen.

Sewage Treatment Plant Effluent Exceedance (Noncompliance Occurrence)

As reported to Mr. Ed Beck of the Wilmington Regional Office on November 4, 1992, the biological oxygen demand on the sewage treatment plant effluent exceeded the weekly maximum limit of 45 mg/l; however, the monthly average for the plant was well below the monthly average limit of 30 mg/l. Hydraulic overloading of the plant is believed to have caused the upset.



CAROLINA POWER & LIGHT COMPANY  
NUCLEAR NPDES EFFLUENT SUMMARY  
DECEMBER 1992

BRUNSWICK STEAM ELECTRIC PLANT

Coarse Mesh Screen Operation (Noncompliance occurrence)

The 2C circulating water intake pump (CWIP) equipped with coarse mesh screen operated for 9 hours and 33 minutes on December 31, 1992. The 2A CWIP was down for preventative maintenance work, while the 2D CWIP was down for repairs to its traveling screen and motor.



RECEIVED  
FEB 17 1993

State of North Carolina  
Department of Environment, Health and Natural Resources  
Division of Environmental Management  
512 North Salisbury Street • Raleigh, North Carolina 27604

James B. Hunt, Jr., Governor

Jonathan B. Howes, Secretary

February 15, 1993

George J. Oliver,  
P O Box 1551  
Raleigh, NC 27602

Subject: Permit No. NC0007064  
Carolina Power & Light Co.  
Brunswick Steam Electric Plant  
Brunswick County

Dear Mr. Oliver :

In accordance with your application for discharge permit received on September 25, 1991, we are forwarding herewith the subject state - NPDES permit. This permit is issued pursuant to the requirements of North Carolina General Statute 143-215 .1 and the Memorandum of Agreement between North Carolina and the US Environmental Protection agency dated December 6, 1983.

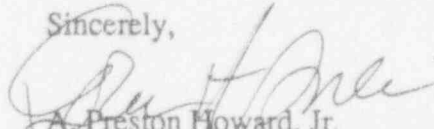
If any parts, measurement frequencies or sampling requirements contained in this permit are unacceptable to you, you have the right to an adjudicatory hearing upon written request within thirty (30) days following receipt of this letter. This request must be in the form of a written petition, conforming to Chapter 150B of the North Carolina General Statutes, and filed with the Office of Administrative Hearings, Post Office Drawer 27447, Raleigh, North Carolina 27611 -7447. Unless such demand is made, this decision shall be final and binding.

Please take notice this permit is not transferable. Part II, E.4. addresses the requirements to be followed in case of change in ownership or control of this discharge.

This permit does not affect the legal requirements to obtain other permits which may be required by the Division of Environmental Management or permits required by the Division of Land Resources, Coastal Area Management Act or any other Federal or Local governmental permit that may be required.

If you have any questions concerning this permit, please contact Mr. Randy Kepler at telephone number 919/733-5083.

Sincerely,



A. Preston Howard, Jr.  
Acting Director

cc: Mr. Jim Patrick, EPA  
Wilmington Regional Office

*Pollution Prevention Pays*  
P.O. Box 29535, Raleigh, North Carolina 27626-0535 Telephone 919-733-7015  
An Equal Opportunity Affirmative Action Employer

STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES  
DIVISION OF ENVIRONMENTAL MANAGEMENT

PERMIT

TO DISCHARGE WASTEWATER UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provision of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended,

Carolina Power and Light Company

is hereby authorized to discharge wastewater from a facility located at  
Brunswick Steam Electric Plant  
on NCSR 133  
2.5 miles north of Southport  
Brunswick County

to receiving waters designated as the Atlantic Ocean in the Cape Fear River Basin

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

This permit shall become effective March 1, 1993

This permit and the authorization to discharge shall expire at midnight on June 30, 1996

Signed this day February 15, 1993



A. Preston Howard, Jr., Acting Director  
Division of Environmental Management  
By Authority of the Environmental Management Commission

SUPPLEMENT TO PERMIT COVER SHEET

Carolina Power and Light Company

is hereby authorized to:

1. Continue operation of a 1.9 billion gallon per day cooling water system consisting of intake structure, 9.6 miles of canal, circulation pumps, siphons under the intercoastal waterway, discharge pump station of Oak Island, and discharge conduits termination 2,000 feet off shore with all necessary appurtenances for withdrawal of cooling water from the Cape Fear River near Snows March and the discharge of cooling water into the Atlantic Ocean, and
  2. Continue operation of a 0.055 MGD wastewater treatment facility consisting of influent pumps, bar screen, flow measuring device, aeration tank, secondary clarifier, and chlorination chamber, and
  3. Continue the discharge of low volume waste sources into the intake canal, and
  4. Continue operation of a diversion fence located at the mouth of the intake canal, and
  5. Continue to operate Fine Mesh Screens at intake pump bays, and
  6. Continue to operate intake pump system to minimize intake flow rate
- all located at Brunswick Steam Electric Plant, on NCSR 133, 2.5 miles north of Southport, Brunswick County (See Part III of this Permit, and
7. Discharge from said treatment works into the Atlantic Ocean which is classified Clas. "SB" waters.

## PART I

### Section B. Schedule of Compliance

1. The permittee shall comply with Final Effluent Limitations specified for discharges in accordance with the following schedule:

Permittee shall comply with Final Effluent Limitations by the effective date of the permit unless specified below.

2. Permittee shall at all times provide the operation and maintenance necessary to operate the existing facilities at optimum efficiency.

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

# A. (). EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FINAL

Permit No. NC0007064

During the period beginning on the effective date of the permit and lasting until expiration, the Permittee is authorized to discharge from outfall(s) serial number 006 - Metal Cleaning Wastes. Such discharges shall be limited and monitored by the permittee as specified below:

| Effluent               | Characteristics | Discharge Limitations |      |           |      | Monitoring Requirements |        |          |
|------------------------|-----------------|-----------------------|------|-----------|------|-------------------------|--------|----------|
|                        |                 | Units                 |      | (Specify) |      | Measurement             | Sample | *Sample  |
|                        |                 | Daily                 | Avg. | Daily     | Max. | Frequency               | Type   | Location |
| Total Suspended Solids |                 | 30.0                  | mg/l | 100.0     | mg/l | * *                     |        |          |
| Oil and Grease         |                 | 15.0                  | mg/l | 20.0      | mg/l | * *                     |        |          |
| Total Copper           |                 | 1.0                   | mg/l | 1.0       | mg/l | * *                     |        |          |
| Total Iron             |                 | 1.0                   | mg/l | 1.0       | mg/l | * *                     |        |          |

The quantity of pollutants discharged in metal cleaning wastes shall not exceed the quantity determined by multiplying the flow of metal cleaning wastes times the above concentrations.

\* Samples taken in compliance with monitoring requirements listed above shall be taken prior to mixing with other sources of water.

\*\* Monitoring for metal cleaning wastes shall be approved by the Division of Environmental Management prior to discharging.

## A. (). EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FINAL

Permit No. NC0007064

During the period beginning on the effective date of the permit and lasting until expiration, the Permittee is authorized to discharge from outfall(s) serial number 005 - Low Volume Waste Sources. Such discharges shall be limited and monitored by the permittee as specified below:

| Effluent                      | Characteristics | Discharge Limitations |            | Monitoring Requirements |               |          |
|-------------------------------|-----------------|-----------------------|------------|-------------------------|---------------|----------|
|                               |                 | Units (Specify)       |            | Measurement             | Sample        | *Sample  |
|                               |                 | Daily Avg.            | Daily Max. | Frequency               | Type          | Location |
| Flow                          |                 |                       |            | Weekly                  | Instantaneous | E        |
| Total Suspended Solids        |                 | 30.0 mg/l             | 100.0 mg/l | Weekly                  | Grab          | E        |
| Oil and Grease                |                 | 15.0 mg/l             | 20.0 mg/l  | Weekly                  | Grab          | E        |
| Priority Pollutant Analysis** |                 |                       |            | Annually                |               | E        |

\* Samples taken in compliance with the monitoring requirements listed above shall be taken prior to mixing with other sources of wastewater.

\*\* See Part III, condition E.

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

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 2/month at the effluent by grab sample.

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

# A. ( ). EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FINAL

Permit No. NC0007064

During the period beginning on the effective date of the permit and lasting until expiration, the Permittee is authorized to discharge from outfall(s) serial number 004 - Sewage Treatment Plant Discharge. Such discharges shall be limited and monitored by the permittee as specified below:

| <u>Effluent Characteristic</u> | <u>Discharge Limitations</u> |                    |                  | <u>Monitoring Requirements</u> |                    |                         |
|--------------------------------|------------------------------|--------------------|------------------|--------------------------------|--------------------|-------------------------|
|                                | <u>Monthly Avg</u>           | <u>Weekly Avg.</u> | <u>Daily Max</u> | <u>Measurement Frequency</u>   | <u>Sample Type</u> | <u>*Sample Location</u> |
| Flow                           | 0.055 MGD                    |                    |                  | Weekly                         | Instantaneous      | E                       |
| BOD, 5 day, 20°C               | 30.0 mg/l                    |                    | 45.0 mg/l        | 2/Month                        | Grab               | E                       |
| Total Suspended Residue        | 30.0 mg/l                    |                    | 45.0 mg/l        | 2/Month                        | Grab               | E                       |
| NH3 as N                       |                              |                    |                  | Monthly                        | Composite          | E                       |
| Temperature                    |                              |                    |                  | Weekly                         | Grab               | E                       |
| Total Nitrogen (NO2+NO3+TKN)   |                              |                    |                  | Quarterly                      | Composite          | E                       |
| Total Phosphorus               |                              |                    |                  | Quarterly                      | Composite          | E                       |

\* Samples taken in compliance with the monitoring requirements specified above shall be taken at the sewage treatment plant discharge prior to mixing with any other waste stream.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 2/month at the effluent by grab sample.

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



## A. (). EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FINAL

Permit No. NC0007064

During the period beginning on the effective date of the permit and lasting until expiration, the Permittee is authorized to discharge from outfall(s) serial number 003 - Radwaste treatment. Such discharges shall be limited and monitored by the permittee as specified below:

| Effluent               | Characteristics | Discharge Limitations |            | Monitoring Requirements |               |          |
|------------------------|-----------------|-----------------------|------------|-------------------------|---------------|----------|
|                        |                 | Units (Specify)       |            | Measurement             | Sample        | *Sample  |
|                        |                 | Daily Avg.            | Daily Max. | Frequency               | Type          | Location |
| Flow                   |                 |                       |            | Annually                | Instantaneous | E        |
| Total Suspended Solids |                 | 30.0 mg/l             | 100.0 mg/l | Annually                | Composite     | E        |
| Oil and Grease         |                 | 15.0 mg/l             | 20.0 mg/l  | Annually                | Grab          | E        |

\* Samples taken in compliance with the monitoring requirements listed above shall be taken at the radwaste treatment plant discharge prior to mixing with other sources of wastewater.

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

A. (1. Continued). EFFLUENT LIMITATIONS AND MONITORING REQUIREMENT

A biological monitoring program shall be continued which will provide sufficient information to follow for a continuing assessment of the impact of the BSEP on the Cape Fear estuary with particular emphasis on the marine fisheries. Data shall be reported on an annual basis and shall include an assessment of the effectiveness of the diversion fence, flow minimization and fine mesh screens in minimizing impingement and entrainment along with an interpretive summary report. Any major changes in the biological monitoring program shall be approved by the Director.

**CHLORINE** - There shall be no discharge of total residual chlorine (or total oxidants) at the ocean outfall. The chlorine and total residual oxidants are to be measured at the Caswell Beach Pump Station, weekly by multiple grab samples.

**TEMPERATURE** - Cooling water system facilities shall be effectively maintained and operated at all so as to meet the temperature standards assigned to the Atlantic Ocean of 0.8°C (1.44°F) increase above ambient water temperature during the months June through August, 2.2°C ( 3.96°F) increase above ambient water temperature during the months of September through May and in no case should the temperature exceed 32°C (89.6°F) due to the discharge of heated liquid measured three feet below the water surface except within the following defined mixing zones:

- (a). The temperature increase above ambient water temperature shall not exceed 7°F outside an area of 60 acres included within the plume extending from the point discharge.
- (b). The temperature increase above ambient water temperature shall not exceed 0.8° C (1.44°F) increase above ambient water temperature during the months of June - August and 2.2°C ( 3.96°F) increase above ambient water temperature during the months of September - May, and in no case should be temperature exceed 32°C (89.6°F) outside an area of 1,000 acres.
- (c). The temperature increase above ambient water temperature at the bottom (defined as one foot above the ocean floor) shall not exceed 7°F for more than 500 feet from the point of discharge nor for an area of more than two acres.

Temperature monitoring at the ocean discharge shall be conducted semiannually, once during the months of April-November and once during the months of December-March. Reactor power levels should be at least 85% for each unit on the date of monitoring. If it is determined by this Division, that the water quality standards or conditions of this permit are being violated or being threatened (within 90% of the limitations or standard), additional monitoring may be required.

Temperature shall be monitored at the surface and bottom (defined as three feet below the water surface and one foot above the ocean floor) in sufficient locations to establish compliance with Water Quality Standards. If sufficient temperature variation exists, a plot of 1°F isotherms should be submitted for surface and bottom conditions.

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

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

Summer as used herein shall include the months of June - September and winter shall include all other months of the year.

# A. (). EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FINAL

Permit No. NC0007064

During the period beginning on the effective date of the permit and lasting until expiration, the Permittee is authorized to discharge from outfall(s) serial number 001 and 002 - once through cooling and non-contact service water. Such discharges shall be limited and monitored by the permittee as specified below:

| Effluent                             | Characteristics |            |      | Discharge Limitations |      |       |      | Monitoring Requirements |             |          |
|--------------------------------------|-----------------|------------|------|-----------------------|------|-------|------|-------------------------|-------------|----------|
|                                      | Lbs/day         |            |      | Units (Specify)       |      |       |      | Measurement             | Sample (1/) | *Sample  |
|                                      | Mon.            | Avg. Daily | Max. | Mon.                  | Avg. | Daily | Max. | Frequency               | Type        | Location |
| Flow                                 |                 |            |      |                       |      |       |      | Continuous              | Recording   |          |
| Cooling Water Flow (cubic ft/s)/unit |                 |            |      |                       |      |       |      | Continuous              | Pump Logs   |          |
| December - March                     |                 |            |      |                       |      | 922   |      |                         |             |          |
| April - November                     |                 |            |      |                       |      | 1105  |      |                         |             |          |

\* During the months of July, August and September, one unit only may increase its flow to 1230 cfs.

At times when the system demand is within 200 MW of available system reserves flow limitations can be suspended upon notice to the Regional Supervisor. Notice should include anticipated flow rates and estimate of duration of flow rates in excess of those otherwise allowed.

Excursions up to eight hours per week are allowed to clean debris from filters and up to three hours per week are allowed for testing of backup pumps and related equipment.

1/ Unless otherwise specified, samples taken in compliance with the monitoring requirements listed above shall be taken at an outlet corresponding to an individual unit prior to mixing with other waste streams except that intake temperature shall be monitored at the plant intake.

During periods of refueling and other outages at zero reactor power, unit flows shall be the minimum required for the safe, efficient operation and maintenance of the plant systems.

FINE MESH SCREENS - Three (3) fine mesh screens shall be maintained on the plant intake structure such that intake cooling water flowing into three (3) pump bays per generating unit will continuously pass through the fine mesh screens. Should use of at least three (3) fine mesh screened pumped bays be impossible due to screen failure or other malfunction, written notice shall be provided stating cause of malfunction, duration and corrective action taken by the plant. For testing purposes, pumps may be operated when not in compliance with fine mesh screen requirements. Preventative maintenance of the fine mesh screens is allowed during periods when the generating unit is operating, if such work is accomplished in the time between one hour after sunrise and one hour before sunset. Preventative maintenance as required at other times is allowed; however the total time during which the screens are out of service for such maintenance shall be reported monthly. Total maintenance outages of fine mesh screens in excess of 7 days per unit, per 3 month period shall be reported in writing.

DIVERSION FENCE - A diversion fence located at the mouth of the intake canal shall be continuously operated and maintained in such a manner as to minimize impingement.

# CP&L BRUNSWICK STEAM ELECTRIC PLANT



PART II  
STANDARD CONDITIONS FOR NPDES PERMITS

SECTION A. DEFINITIONS

1. Permit Issuing Authority

The Director of the Division of Environmental Management.

2. DEM or Division

Means the Division of Environmental Management, Department of Environment, Health and Natural Resources.

3. EMC

Used herein means the North Carolina Environmental Management Commission.

4. Act or "the Act"

The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 USC 1251, et. seq.

5. Mass/Day Measurements

- a. The "monthly average discharge" is defined as the total mass of all daily discharges sampled and/or measured during a calendar month on which daily discharges are sampled and measured, divided by the number of daily discharges sampled and/or measured during such month. It is therefore, an arithmetic mean found by adding the weights of the pollutant found each day of the month and then dividing this sum by the number of days the tests were reported. The limitation is identified as "Monthly Average" in Part I of the permit.
- b. The "weekly average discharge" is defined as the total mass of all daily discharges sampled and/or measured during the calendar week (Sunday - Saturday) on which daily discharges are sampled and measured, divided by the number of daily discharges sampled and/or measured during such week. It is, therefore, an arithmetic mean found by adding the weights of pollutants found each day of the week and then dividing this sum by the number of days the tests were reported. This limitation is identified as "Weekly Average" in Part I of the permit.
- c. The "maximum daily discharge" is the total mass (weight) of a pollutant discharged during a calendar day. If only one sample is taken during any calendar day the weight of pollutant calculated from it is the "maximum daily discharge." This limitation is identified as "Daily Maximum," in Part I of the permit.
- d. The "average annual discharge" is defined as the total mass of all daily discharges sampled and/or measured during the calendar year on which daily discharges are sampled and measured, divided by the number of daily discharges sampled and/or measured during such year. It is, therefore, an arithmetic mean found by adding the weights of pollutants found each day of the year and then dividing this sum by the number of days the tests were reported. This limitation is defined as "Annual Average" in Part I of the permit.



6. Concentration Measurement

- a. The "average monthly concentration," other than for fecal coliform bacteria, is the sum of the concentrations of all daily discharges sampled and/or measured during a calendar month on which daily discharges are sampled and measured, divided by the number of daily discharges sampled and/or measured during such month (arithmetic mean of the daily concentration values). The daily concentration value is equal to the concentration of a composite sample or in the case of grab samples is the arithmetic mean (weighted by flow value) of all the samples collected during that calendar day. The average monthly count for fecal coliform bacteria is the geometric mean of the counts for samples collected during a calendar month. This limitation is identified as "Monthly Average" under "Other Limits" in Part I of the permit.
- b. The "average weekly concentration," other than for fecal coliform bacteria, is the sum of the concentrations of all daily discharges sampled and/or measured during a calendar week (Sunday/Saturday) on which daily discharges are sampled and measured divided by the number of daily discharges sampled and/or measured during such week (arithmetic mean of the daily concentration values). The daily concentration value is equal to the concentration of a composite sample or in the case of grab samples is the arithmetic mean (weighted by flow value) of all the samples collected during that calendar day. The average weekly count for fecal coliform bacteria is the geometric mean of the counts for samples collected during a calendar week. This limitation is identified as "Weekly Average" under "Other Limits" in Part I of the permit.
- c. The "maximum daily concentration" is the concentration of a pollutant discharge during a calendar day. If only one sample is taken during any calendar day the concentration of pollutant calculated from it is the "Maximum Daily Concentration". It is identified as "Daily Maximum" under "Other Limits" in Part I of the permit.
- d. The "average annual concentration," other than for fecal coliform bacteria, is the sum of the concentrations of all daily discharges sampled and/or measured during a calendar year on which daily discharges are sampled and measured divided by the number of daily discharges sampled and/or measured during such year (arithmetic mean of the daily concentration values). The daily concentration value is equal to the concentration of a composite sample or in the case of grab samples is the arithmetic mean (weighted by flow value) of all the samples collected during that calendar day. The average yearly count for fecal coliform bacteria is the geometric mean of the counts for samples collected during a calendar year. This limitation is identified as "Annual Average" under "Other Limits" in Part I of the permit.
- e. The "daily average concentration" (for dissolved oxygen) is the minimum allowable amount of dissolved oxygen required to be available in the effluent prior to discharge averaged over a calendar day. If only one dissolved oxygen sample is taken over a calendar day, the sample is considered to be the "daily average concentration" for the discharge. It is identified as "daily average" in the text of Part I.
- f. The "quarterly average concentration" is the average of all samples taken over a calendar quarter. It is identified as "Quarterly Average Limitation" in the text of Part I of the permit.
- g. A calendar quarter is defined as one of the following distinct periods: January through March, April through June, July through September, and October through December.

7. Other Measurements

- a. Flow, (MGD): The flow limit expressed in this permit is the 24 hours average flow, averaged monthly. It is determined as the arithmetic mean of the total daily flows recorded during the calendar month.
- b. An "instantaneous flow measurement" is a measure of flow taken at the time of sampling, when both the sample and flow will be representative of the total discharge.
- c. A "continuous flow measurement" is a measure of discharge flow from the facility which occurs continually without interruption throughout the operating hours of the facility. Flow shall be monitored continually except for the infrequent times when there may be no flow or for infrequent maintenance activities on the flow device.

8. Types of Samples

- a. Composite Sample: A composite sample shall consist of:
  - (1) a series of grab samples collected at equal time intervals over a 24 hour period of discharge and combined proportional to the rate of flow measured at the time of individual sample collection, or
  - (2) a series of grab samples of equal volume collected over a 24 hour period with the time intervals between samples determined by a preset number of gallons passing the sampling point. Flow measurement between sample intervals shall be determined by use of a flow recorder and totalizer, and the present gallon interval between sample collection fixed at no greater than 1/24 of the expected total daily flow at the treatment system, or
  - (3) a single, continuous sample collected over a 24 hour period proportional to the rate of flow.

In accordance with (1) above, the time interval between influent grab samples shall be no greater than once per hour, and the time interval between effluent grab samples shall be no greater than once per hour except at wastewater treatment systems having a detention time of greater than 24 hours. In such cases, effluent grab samples may be collected at time intervals evenly spaced over the 24 hour period which are equal in number of hours to the detention time of the system in number of days. However, in no case may the time interval between effluent grab samples be greater than six (6) hours nor the number of samples less than four (4) during a 24 hour sampling period.

- b. Grab Sample: Grab samples are individual samples collected over a period of time not exceeding 15 minutes; the grab sample can be taken manually. Grab samples must be representative of the discharge or the receiving waters.

9. Calculation of Means

- a. Arithmetic Mean: The arithmetic mean of any set of values is the summation of the individual values divided by the number of individual values.
- b. Geometric Mean: The geometric mean of any set of values is the Nth root of the product of the individual values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered to be one (1).

- c. **Weighted by Flow Value:** Weighted by flow value means the summation of each concentration times its respective flow divided by the summation of the respective flows.

10. Calendar Day

A calendar day is defined as the period from midnight of one day until midnight of the next day. However, for purposes of this permit, any consecutive 24-hour period that reasonably represents the calendar day may be used for sampling.

11. Hazardous Substance

A hazardous substance means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act.

12. Toxic Pollutant

A toxic pollutant is any pollutant listed as toxic under Section 307(a)(1) of the Clean Water Act.

SECTION B. GENERAL CONDITIONS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

- a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
- b. The Clean Water Act provides that any person who violates a permit condition is subject to a civil penalty not to exceed \$25,000 per day for each violation. Any person who negligently violates any permit condition is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment for not more than 1 year, or both. Any person who knowingly violates permit conditions is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than 3 years, or both. Also, any person who violates a permit condition may be assessed an administrative penalty not to exceed \$10,000 per violation with the maximum amount not to exceed \$125,000. [Ref: Section 309 of the Federal Act 33 U.S.C. 1319 and 40 CFR 122.41 (a)]
- c. Under state law, a civil penalty of not more than ten thousand dollars (\$10,000) per violation may be assessed against any person who violates or fails to act in accordance with the terms, conditions, or requirements of a permit. [Ref: North Carolina General Statutes § 143-215.6A]
- d. Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318, or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000.



Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.

2. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

3. Civil and Criminal Liability

Except as provided in permit conditions on "Bypassing" (Part II, C-4) and "Power Failures" (Part II, C-7), nothing in this permit shall be construed to relieve the permittee from any responsibilities, liabilities, or penalties for noncompliance pursuant to NCGS 143-215.3, 143-215.6 or Section 309 of the Federal Act, 33 USC 1319. Furthermore, the permittee is responsible for consequential damages, such as fish kills, even though the responsibility for effective compliance may be temporarily suspended.

4. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under NCGS 143-215.75 et seq. or Section 311 of the Federal Act, 33 USC 1321. Furthermore, the permittee is responsible for consequential damages, such as fish kills, even though the responsibility for effective compliance may be temporarily suspended.

5. Property Rights

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

6. Onshore or Offshore Construction

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.

7. Severability

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

8. Duty to Provide Information

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

9. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

10. Expiration of Permit

The permittee is not authorized to discharge after the expiration date. In order to receive automatic authorization to discharge beyond the expiration date, the permittee shall submit such information, forms, and fees as are required by the agency authorized to issue permits no later than 180 days prior to the expiration date. Any permittee that has not requested renewal at least 180 days prior to expiration, or any permittee that does not have a permit after the expiration and has not requested renewal at least 180 days prior to expiration, will subject the permittee to enforcement procedures as provided in NCGS 143-215.6 and 33 USC 1251 et. seq.

11. Signatory Requirements

All applications, reports, or information submitted to the Permit Issuing Authority shall be signed and certified.

a. All permit applications shall be signed as follows:

- (1) For a corporation: by a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means: (a) a president, secretary, treasurer or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or (b) the manager of one or more manufacturing production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding 25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
- (3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

b. All reports required by the permit and other information requested by the Permit Issuing Authority shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- (1) The authorization is made in writing by a person described above;
- (2) The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, a position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
- (3) The written authorization is submitted to the Permit Issuing Authority.

- c. Certification. Any person signing a document under paragraphs a. or b. of this section shall make the following certification:

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

12. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

13. Permit Modification, Revocation and Reissuance, or Termination

The issuance of this permit does not prohibit the permit issuing authority from reopening and modifying the permit, revoking and reissuing the permit, or terminating the permit as allowed by the laws, rules, and regulations contained in Title 40, Code of Federal Regulations, Parts 122 and 123; Title 15A of the North Carolina Administrative Code, Subchapter 2H .0100; and North Carolina General Statute 143-215.1 et. al.

14. Previous Permits

All previous National Pollutant Discharge Elimination System Permits issued to this facility, whether for operation or discharge, are hereby revoked by issuance of this permit. [The exclusive authority to operate this facility arises under this permit. The authority to operate the facility under previously issued permits bearing this number is no longer effective. ] The conditions, requirements, terms, and provisions of this permit authorizing discharge under the National Pollutant Discharge Elimination System govern discharges from this facility.

SECTION C. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Certified Operator

Pursuant to Chapter 90A-44 of North Carolina General Statutes, and upon classification of the facility by the Certification Commission, the permittee shall employ a certified wastewater treatment plant operator in responsible charge (ORC) of the wastewater treatment facilities. Such operator must hold a certification of the grade equivalent to or greater than the classification assigned to the wastewater treatment facilities by the Certification Commission. The permittee must also employ a certified back-up operator of the appropriate type and any grade to comply with the conditions of Title 15A, Chapter 8A .0202. The ORC of the facility must visit each Class I facility at least weekly and each Class II, III, and IV facility at least daily, excluding weekends and holidays, and must properly manage and document daily operation and maintenance of the facility and must comply with all other conditions of Title 15A, Chapter 8A .0202. Once the facility is classified, the permittee shall submit a letter to the Certification Commission which designates the operator in responsible charge within thirty days after the wastewater treatment facilities are 50% complete.

2. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

3. Need to Halt or Reduce not a Defense

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

4. Bypassing of Treatment Facilities

a. Definitions

- (1) "Bypass" means the known diversion of waste streams from any portion of a treatment facility including the collection system, which is not a designed or established or operating mode for the facility.
- (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass not exceeding limitations.

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Paragraphs c. and d. of this section.

c. Notice

- (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass; including an evaluation of the anticipated quality and affect of the bypass.
- (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II, E. 6. of this permit. (24 hour notice).

d. Prohibition of Bypass

- (1) Bypass is prohibited and the Permit Issuing Authority may take enforcement action against a permittee for bypass, unless:
  - (A) Bypass was unavoidable to prevent loss of life, personal injury or severe property damage;
  - (B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes or maintenance during normal

periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(C) The permittee submitted notices as required under Paragraph c. of this section.

(2) The Permit Issuing Authority may approve an anticipated bypass, after considering its adverse affects, if the Permit Issuing Authority determines that it will meet the three conditions listed above in Paragraph d. (1) of this section.

5. Upsets

a. Definition.

"Upset " means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an upset.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph c. of this condition are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset.

A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
- (2) The permittee facility was at the time being properly operated; and
- (3) The permittee submitted notice of the upset as required in Part II, E. 6. (b) (B) of this permit.
- (4) The permittee complied with any remedial measures required under Part II, B. 2. of this permit.

d. Burden of proof.

In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be utilized/disposed of in accordance with NCGS 143-215.1 and in a manner such as to prevent any pollutant from such materials from entering waters of the State or navigable waters of the United States. The permittee shall comply with all existing federal



regulations governing the disposal of sewage sludge. Upon promulgation of 40 CFR Part 503, any permit issued by the Permit Issuing Authority for the utilization/disposal of sludge may be reopened and modified, or revoked and reissued, to incorporate applicable requirements at 40 CFR Part 503. The permittee shall comply with applicable 40 CFR Part 503 Standards for the Use and Disposal of Sewage Sludge (when promulgated) within the time provided in the regulation, even if the permit is not modified to incorporate the requirement. The permittee shall notify the Permit Issuing Authority of any significant change in its sludge use or disposal practices.

#### 7. Power Failures

The permittee is responsible for maintaining adequate safeguards as required by DEM Regulation, Title 15A, North Carolina Administrative Code, Subchapter 2H, .0124 Reliability, to prevent the discharge of untreated or inadequately treated wastes during electrical power failures either by means of alternate power sources, standby generators or retention of inadequately treated effluent.

### SECTION D. MONITORING AND RECORDS

#### 1. Representative Sampling

Samples collected and measurements taken, as required herein, shall be characteristic of the volume and nature of the permitted discharge. Samples collected at a frequency less than daily shall be taken on a day and time that is characteristic of the discharge over the entire period which the sample represents. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other wastestream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Permit Issuing Authority.

#### 2. Reporting

Monitoring results obtained during the previous month(s) shall be summarized for each month and reported on a monthly Discharge Monitoring Report (DMR) Form (DEM No. MR 1, 1.1, 2, 3) or alternative forms approved by the Director, DEM, postmarked no later than the 30th day following the completed reporting period.

The first DMR is due on the last day of the month following the issuance of the permit or in the case of a new facility, on the last day of the month following the commencement of discharge. Duplicate signed copies of these, and all other reports required herein, shall be submitted to the following address:

Division of Environmental Management  
Water Quality Section  
ATTENTION: Central Files  
Post Office Box 29535  
Raleigh, North Carolina 27626-0535

#### 3. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to ensure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than + 10% from the true discharge rates throughout the range of expected

discharge volumes. Once-through condenser cooling water flow which is monitored by pump logs, or pump hour meters as specified in Part I of this permit and based on the manufacturer's pump curves shall not be subject to this requirement.

4. Test Procedures

Test procedures for the analysis of pollutants shall conform to the EMC regulations published pursuant to NCGS 143-215.63 et. seq, the Water and Air Quality Reporting Acts, and to regulations published pursuant to Section 304(g), 33 USC 1314, of the Federal Water Pollution Control Act, as Amended, and Regulation 40 CFR 136; or in the case of sludge use or disposal, approved under 40 CFR 136, unless otherwise specified in 40 CFR 503, unless other test procedures have been specified in this permit.

To meet the intent of the monitoring required by this permit, all test procedures must produce minimum detection and reporting levels that are below the permit discharge requirements and all data generated must be reported down to the minimum detection or lower reporting level of the procedure. If no approved methods are determined capable of achieving minimum detection and reporting levels below permit discharge requirements, then the most sensitive (method with the lowest possible detection and reporting level) approved method must be used.

5. Penalties for Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

6. Records Retention

Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

7. Recording Results

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

- a. The date, exact place, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

8. Inspection and Entry

The permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Director), upon the presentation of credentials and other documents as may be required by law, to;

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

SECTION E. REPORTING REQUIREMENTS

1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

2. Planned Changes

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR Part 122.29 (b); or
- b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR Part 122.42 (a) (1).
- c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alternation, addition or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

3. Anticipated Noncompliance

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.



4. Transfers

This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

5. Monitoring Reports

Monitoring results shall be reported at the intervals specified elsewhere in this permit.

- a. Monitoring results must be reported on a Discharge Monitoring Report (DMR) (See Part II. D. 2 of this permit) or forms provided by the Director for reporting results of monitoring of sludge use or disposal practices.
- b. If the permittee monitors any pollutant more frequently than required by the permit, using test procedures specified in Part II, D. 4. of this permit or in the case of sludge use or disposal, approved under 40 CFR 503, or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
- c. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

6. Twenty-four Hour Reporting

- a. The permittee shall report to the central office or the appropriate regional office any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee became aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance, and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
- b. The following shall be included as information which must be reported within 24 hours under this paragraph:
  - (1) Any unanticipated bypass which exceeds any effluent limitation in the permit.
  - (2) Any upset which exceeds any effluent limitation in the permit.
  - (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours.
- c. The Director may waive the written report on a case-by-case basis for reports under paragraph b. above of this condition if the oral report has been received within 24 hours.

7. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under Part II. E. 5 and 6. of this permit at the time monitoring reports are submitted. The reports shall contain the information listed in Part II. E. 6. of this permit.

8. Other Information

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

9. Noncompliance Notification

The permittee shall report by telephone to either the central office or the appropriate regional office of the Division as soon as possible, but in no case more than 24 hours or on the next working day following the occurrence or first knowledge of the occurrence of any of the following:

- a. Any occurrence at the water pollution control facility which results in the discharge of significant amounts of wastes which are abnormal in quantity or characteristic, such as the dumping of the contents of a sludge digester, the known passage of a slug of hazardous substance through the facility; or any other unusual circumstances.
- b. Any process unit failure, due to known or unknown reasons, that render the facility incapable of adequate wastewater treatment such as mechanical or electrical failures of pumps, aerators, compressors, etc.
- c. Any failure of a pumping station, sewer line, or treatment facility resulting in a by-pass directly to receiving waters without treatment of all or any portion of the influent to such station or facility.

Persons reporting such occurrences by telephone shall also file a written report in letter form within 5 days following first knowledge of the occurrence.

10. Availability of Reports

Except for data determined to be confidential under NCGS 143-215.3(a)(2) or Section 308 of the Federal Act, 33 USC 131<sup>2</sup>, all reports prepared in accordance with the terms shall be available for public inspection at the offices of the Division of Environmental Management. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in NCGS 143-215.1(b)(2) or in Section 309 of the Federal Act.

11. Penalties for Falsification of Reports

The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both.

### PART III OTHER REQUIREMENTS

#### A. Construction

No construction of wastewater treatment facilities or additions to add to the plant's treatment capacity or to change the type of process utilized at the treatment plant shall be begun until Final Plans and Specifications have been submitted to the Division of Environmental Management and written approval and Authorization to Construct has been issued.

#### B. Groundwater Monitoring

The permittee shall, upon written notice from the Director of the Division of Environmental Management, conduct groundwater monitoring as may be required to determine the compliance of this NPDES permitted facility with the current groundwater standards.

#### C. Changes in Discharges of Toxic Substances

The permittee shall notify the Permit Issuing Authority as soon as it knows or has reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels";

- (1) One hundred micrograms per liter (100 ug/l);

- (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

- (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application.

- b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels";

- (1) Five hundred micrograms per liter (500 ug/l);

- (2) One milligram per liter (1 mg/l) for antimony;

- (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application.

#### D. Requirement to Continually Evaluate Alternatives to Wastewater Discharges

The permittee shall continually evaluate all wastewater disposal alternatives and pursue the most environmentally sound alternative of the reasonably cost effective alternatives. If the facility is in substantial non-compliance with the terms and conditions of the NPDES permit or governing rules, regulations or laws, the permittee shall submit a report in such form and detail as required by the Division evaluating these alternatives and a plan of action within sixty (60) days of notification by the Division.

## E. Pollutant Analysis Condition

The permittee shall conduct a test for pollutants annually at the effluent from the treatment plant. The discharge shall be evaluated as follows: 1) A pollutant analysis of the effluent must be completed annually using EPA approved methods for the following analytic fractions: (a) purgeables (i.e., volatile organic compounds); (b) acid extractables; (c) base/neutral extractables; (d) organochlorine pesticides and PCB's (e) herbicides; and (f) metals and other inorganics. The Annual Pollutant Analysis Monitoring (APAM) Requirement Reporting Form A and accompanying memo, to be provided to all discharges affected by this monitoring requirement, describes the sampling and analysis requirements and lists chemicals to be included in the pollutant analysis. This monitoring requirement is to be referred to as the "Annual Pollutant Analysis Monitoring Requirement" (APAM).

(2) Other significant levels of organic chemicals must be identified and approximately quantified. For the purpose of implementing this requirement, the largest 10 GC/MS peaks in the purgeable base/neutral extractable, and acid extractable fractions (or fewer than 10, if less than 10 unidentified peaks occur) for chemicals other than those specified on the APA Requirement Reporting Form A should be identified and approximately quantified as stated in the APAM Reporting Form A instructions. This part (item 2) of the APAM requirement is to be referred to as the "10 significant peaks rule").

## F. Special Conditions

1. Submittal to the Department of Natural Resources and Community Development of an Erosion and Sedimentation Control Plan in accordance with Chapter 4 of Title 15 of the North Carolina Administrative Code is required prior to the beginning of significant land disturbing activities.

2. The Company shall continue a groundwater monitoring program acceptable to the Division to determine any adverse impact on groundwater quality. The Company shall update their Groundwater Monitoring Program to adhere to the current version of 15 NCAC 2L.

3. The permittee shall obtain authorization from the Division of Environmental Management prior to utilizing any biocide in the cooling water. The permittee shall notify the Director in writing not later than ninety (90) days prior to instituting use of any additional biocide used in cooling systems which may be toxic to aquatic life other than those previously reported to the Division of Environmental Management. Such notification shall include completion of Biocide Worksheet Form 101 and a map locating the discharge point and receiving stream.

Concentrations of chromium, copper, or zinc added to biocides shall not exceed applicable water quality standards or action levels in the receiving stream, as determined by calculations from the biocide worksheet Form 101 with Supplemental Metals Analysis worksheet.

4. The discharge of intake screen wash water is permitted without limitations or monitoring requirements.

5. Copies of Environmental Monitoring Reports required by the Nuclear Regulatory Commission shall be forwarded to the Division of Environmental Management and the US Environmental Protection Agency.

6. The Company shall operate fine mesh screens on the plant's intake structure such that intake water flowing into three pumps bays of each unit's circulating water system will pass through continuously traveling fine mesh screens prior to pumpage. The permittee will maintain a sound maintenance program to avoid operational loss of fine mesh screens during pumpage.

PART IV  
ANNUAL ADMINISTERING AND COMPLIANCE MONITORING FEE REQUIREMENTS

- A. The permittee must pay the annual administering and compliance monitoring fee within 30 (thirty) days after being billed by the Division. Failure to pay the fee in a timely manner in accordance with 15A NCAC 2H .0105(b)(4) may cause this Division to initiate action to revoke the permit.