Plaintiff's Exhibit
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NCDENR

North Carolina Department of Environment and Natural Resources
Division of Water Quality

Beverly Eaves Perdue
Governor

Coleen H. Sullins
Director

Dee Freeman
Secretary

January 18, 2011

Mr. Allen Stowe
Water Management,
Duke Energy Corporation, P.O. Box 1006
Charlotte, North Carolina 28201

Subject: NPDES Permit Issuance
Permit No. NC0004987
Marshall Steam Station
Catawba County

Dear Mr. Stowe:

The Division of Water Quality is forwarding herewith the Final NPDES permit for Marshall Steam Station. This permit renewal is issued pursuant to the requirements of North Carolina General Statute 143-215.1 and the Memorandum of Agreement between North Carolina and the U.S. Environmental Protection Agency dated October 15, 2007 (or as subsequently amended).

A public hearing was held on October 19, 2010 in Mooresville seeking comments on the Draft permit and proposed continuation of the Clean Water Act Section 316(a) temperature variance. This Final permit incorporates recommendations of the DWQ Hearing Officer as well as other changes. Listed below are all changes from the previous permit:

- Structural integrity inspection of ash pond dam. Dam safety and design requirements per 15A NCAC 2K are required.
- CWA Section 316(a) Thermal Variance. This condition requires the facility to submit a Balanced and Indigenous Population (BIP) study plan that conforms to EPA study guidelines, and receives DWQ and EPA concurrence prior to study implementation. A BIP report must be submitted no later than 180 days prior to permit expiration, should the permittee request continuation of the CWA Section 316(a) thermal variance.
- Fish Tissue Monitoring Near Ash Pond Discharge. The facility shall conduct fish tissue monitoring near the ash pond discharge, once during the permit term, and analyze for arsenic, selenium, and mercury. The fish tissue monitoring shall be in accordance with the Sampling Plan approved by the Division.
- Instream Monitoring. The facility shall conduct semiannual instream monitoring at two BIP monitoring stations (located upstream and downstream of the ash pond discharge). Samples shall be analyzed for arsenic, selenium, mercury, chromium, lead, cadmium, copper, zinc, and total dissolved solids (TDS).
- Monitoring for As, Cl, Hg, and Ni was eliminated from the internal Outfall 004 based on the review of the effluent data and in response to your request
- Groundwater monitoring was added to the permit. Please see Part I, Special Condition 22.

1617 Mail Service Center, Raleigh, North Carolina 27699-1617
Location: 512 N. Salisbury St. Raleigh, North Carolina 27604
Phone: 919-807-6300 \ FAX: 919-807-6492 \ Customer Service: 1-877-623-6748
Internet: www.ncwaterquality.org
An Equal Opportunity \ Affirmative Action Employer

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, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714. Unless such a demand is made, this permit shall be final and binding.

Please take notice that this permit is not transferable except after notice to the Division of Water Quality. The Division may require modification or revocation and reissuance of the permit. This permit does not affect the legal requirements to obtain other permits which may be required by the Division of Water Quality, the Division of Land Resources, the Coastal Area Management Act, or any other federal or local governmental permit.

If you have any questions on this permit, please contact Sergei Chernikov at 919-807-6393.

Sincerely,

Coleen H. Sullins

Hardcopy: Central Files, NPDES Files
Mooresville Regional Office, SWPS
NPDES files

Email: US EPA, Region IV
Aquatic Toxicology Unit
Kay Bond, Southern Environmental Law Center [kbond@selcnc.org]
David Merryman, Catawba Riverkeeper [david@catawbariverkeeper.org]
Hope Taylor, CWFNC [hope@cwfnc.org]

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STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WATER QUALITY

PERMIT

TO DISCHARGE WASTEWATER UNDER THE

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions 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,

Duke Energy Carolinas, LLC

is hereby authorized to discharge wastewater from a facility located at

Marshall Steam Station
At the intersection of NC Highway 150 and NCSR 1841
Terrell
Catawba County

to receiving waters designated as the Catawba River (Lake Norman) in the Catawba River Basin in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, III and IV hereof.

This permit shall become effective March 1, 2011.

This permit and authorization to discharge shall expire at midnight on April 30, 2015.

Signed this day January 18, 2011.

Coleen H. Sullins, Director
Division of Water Quality
By Authority of the Environmental Management Commission

SUPPLEMENT TO PERMIT COVER SHEET

All previous NPDES Permits issued to this facility, whether for operation or discharge are hereby revoked, and as of this issuance, any previously issued permit bearing this number is no longer effective. Therefore, the exclusive authority to operate and discharge from this facility arises under the permit conditions, requirements, terms, and provisions included herein.

Duke Energy Carolinas, LLC

is hereby authorized to:

1. Continue to discharge once-through cooling water and intake screen backwash through outfall 001; treated wastewater (consisting of metal cleaning wastes, coal pile runoff, ash transport water, domestic wastewater, low volume wastes, and FGD wet scrubber wastewater) from the ash settling basin through outfall 002; treated FGD wet scrubber wastewater through internal outfall 004 (upstream of the ash settling basin); yard sump overflows through outfalls 002A and 002B; and non-contact cooling water from the induced draft fan control house through outfall 003. All discharges result from activities at Duke Energy's Marshall Steam Station at the intersection of NC Highway 150 and NCSR 1841 in Terrell, Catawba County;

2. Continue to operate a FGD wet scrubber wastewater treatment system discharging to the ash settling basin through internal outfall 004; and

3. Discharge from said treatment works at the locations specified on the attached map into the Catawba River (Lake Norman) which is classified WS-IV and B CA waters in the Catawba River Basin.

PART I

1. Effluent Limitations and Monitoring Requirements (Outfall 001)

During the period beginning on the effective date of this permit and lasting until expiration, the Permittee is authorized to discharge from **Outfall 001 (once-through cooling water).** Such discharges shall be limited and monitored by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow (MGD)	Monitor & Report		Daily	Pump logs or similar readings	Effluent
Temperature (November 1 - June 30)	33.3 °C		Daily	Grab	Effluent
Temperature (July 1 - October 31)	34.4 °C		Daily	Grab	Effluent
Free Available Chlorine[1]	0.2 mg/L	0.5 mg/L	Daily	Grab	Effluent

NOTES:

1 Once-through cooling water shall not be chlorinated. Should the facility wish to chlorinate once-through cooling water, a permit modification must be issued prior to commencement of chlorination. The monitoring requirement and effluent limitations only apply if chlorination is commenced.

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

2. Effluent Limitations and Monitoring Requirements (Outfall 002)

During the period beginning on the effective date of this permit and lasting until expiration, the Permittee is authorized to discharge from **Outfall 002 (ash settling basin discharge).** Such discharges shall be limited and monitored by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS		
	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[1]
Flow (MGD)	Monitor & Report			Monthly	Pump logs or similar readings	Effluent
Oil and Grease	9.0 mg/L		12.0 mg/L	Quarterly	Grab	Effluent
Total Suspended Solids[2]	20.0 mg/L		65.0 mg/L	Monthly	Grab	Effluent
Total Arsenic	Monitor & Report			Quarterly	Grab	Effluent
Chloride	Monitor & Report			Quarterly	Grab	Effluent
Total Copper	1.0 mg/L		1.0 mg/L	See note 3	Grab	Effluent
Total Iron	1.0 mg/L		1.0 mg/L	See note 3	Grab	Effluent
Total Mercury	Monitor & Report			Quarterly	Grab	Effluent
Total Nickel	Monitor & Report			Quarterly	Grab	Effluent
Total Selenium	Monitor & Report			Weekly	Grab	Effluent
Total Selenium[4]		29 µg/L	270 µg/L	Weekly	Grab	Effluent
Total Zinc	Monitor & Report			Monthly	Grab	Effluent
Total Nitrogen (NO_2+NO_3+TKN)	Monitor & Report			Monthly	Grab	Effluent
Total Phosphorus	Monitor & Report			Quarterly	Grab	Effluent
Chronic Toxicity	See Part I, Section A, #14			Quarterly	Grab	Effluent
pH	Between 6.0 and 9.0 Standard Units			Monthly	Grab	Effluent

NOTES:

1 Effluent sampling shall be conducted at the discharge from the ash settling basin prior to mixing with any other waste stream(s).

2 A total suspended solids monthly average of 40 mg/L is permitted provided the Permittee can demonstrate that the difference between the monthly average of 20 mg/L and 40 mg/L is the result of the concentration of total suspended solids in the intake water.

3 Monitoring shall be per occurrence of chemical metal cleaning and samples shall be from a representative discharge.

4 The limits shall become effective on July 1, 2012.

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

3. Effluent Limitations and Monitoring Requirements (Outfall 002A)

During the period beginning on the effective date of this permit and lasting until expiration, the Permittee is authorized to discharge from **Outfall 002A (yard sump #1 overflows).** Such discharges shall be limited and monitored by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[1]
Flow (MGD)			Episodic	Estimate	Effluent
pH			Episodic	Grab	Effluent
Total Suspended Solids			Episodic	Grab	Effluent
Total Iron			See note 2	Grab	Effluent

NOTES:

1 Effluent samples shall be collected at a point upstream of the discharge to the Catawba River.

2 Sampling for iron is required when TSS is reported as greater than 100 mg/L.

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

All flows shall be reported on monthly DMRs. Should no flow occur during a given month, the words "No Flow" shall be clearly written on the front of the DMR. Episodic sampling is required per sump overflow occurrence lasting longer than one hour. All samples shall be of a representative discharge.

4. Effluent Limitations and Monitoring Requirements (Outfall 002B)

During the period beginning on the effective date of this permit and lasting until expiration, the Permittee is authorized to discharge from **Outfall 002B (yard sump #2 overflows).** Such discharges shall be limited and monitored by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[1]
Flow (MGD)			Episodic	Estimate	Effluent
pH			Episodic	Grab	Effluent
Total Suspended Solids			Episodic	Grab	Effluent
Total Iron			See note 2	Grab	Effluent

NOTES:

1 Effluent samples shall be collected at a point upstream of the discharge to the Catawba River.

2 Sampling for iron is required when TSS is reported as greater than 100 mg/L.

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

All flows shall be reported on monthly DMRs. Should no flow occur during a given month, the words "No Flow" shall be clearly written on the front of the DMR. Episodic sampling is required per sump overflow occurrence lasting longer than one hour. All samples shall be of a representative discharge.

5. Effluent Limitations and Monitoring Requirements (Outfall 003)

During the period beginning on the effective date of this permit and lasting until expiration, the Permittee is authorized to discharge from **Outfall 003 (non-contact cooling water from the induced draft fan control house).** Such discharges shall be limited and monitored by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow (MGD)					
Temperature[1]					
Total Residual Chlorine[2]					
Free Available Chlorine[2]	0.2 mg/L	0.5 mg/L			
PH	Between 6.0 and 9.0 Standard Units				

NOTES:

1 The temperature of the effluent shall be such as not to cause an increase in the temperature of the receiving stream of more than 2.8°C and in no case cause the ambient water temperature to exceed 29°C.

2 Monitoring requirements apply only if chlorine is added to the cooling water. Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available chlorine or total residual chlorine at any one time.

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

Limitations shall be met at the discharge effluent. Monitoring frequencies are not specified as the discharge is to the intake canal for outfall 001.

6. Effluent Limitations and Monitoring Requirements (Outfall 004)

During the period beginning on the effective date of this permit and lasting until expiration, the Permittee is authorized to discharge from **Internal Outfall 004 (treated FGD wet scrubber wastewater to ash settling basin).** Such discharges shall be limited and monitored by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[1]
Flow (MGD)	Monitor & Report		Monthly	Pump logs or similar readings	E
Total Selenium	Monitor & Report		Weekly	Grab	E
Total Zinc	Monitor & Report		Monthly	Grab	E

NOTES:

1 Sample Location: E - Effluent from the constructed wetland prior to discharge to the ash settling basin.

All flows shall be reported on monthly DMRs. Should no flow occur during a given month, the words "No Flow" shall be clearly written on the front of the DMR. All samples shall be of a representative discharge.

7. DEFINITIONS

The term "low volume waste sources" means, taken collectively as if from one source, wastewater from all sources except those for which specific limitations are otherwise established in this part. Low volume wastes sources include, but are not limited to: Wastewater from wet scrubber air pollution control systems, ion exchange water treatment system, water treatment evaporator blowdown, laboratory and sampling streams, boiler blowdown, floor drains, and recirculating house service water systems. Sanitary and air conditioning wastes are not considered low volume wastes.

The term "metal cleaning waste" means any wastewater resulting from cleaning (with or without chemical cleaning compounds) any metal process equipment including, but not limited to, boiler tube cleaning, boiler fireside cleaning, and air preheater cleaning.

The term, "chemical metal cleaning waste" means any wastewater resulting from the cleaning of any metal process equipment with chemical compounds, including, but not limited to, boiler tube cleaning. Chemical metal cleaning will be conducted according to approved Duke Energy equivalency demonstration.

The term "FGD wet scrubber wastewater" means wastewater resulting from the use of the flue-gas desulfurization wet scrubber.

8. TOXICITY RE-OPENER CONDITION

This permit shall be modified, or revoked and reissued to incorporate toxicity limitations and monitoring requirements in the event toxicity testing or other studies conducted on the effluent or receiving stream indicate that detrimental effects may be expected in the receiving stream as a result of this discharge.

9. MONITORING FREQUENCIES

If the Permittee, after monitoring for at least six months, determines that effluent limits contained herein are consistently being met, it may be requested of the Director that the monitoring requirements be reduced to a lesser frequency.

10. POLYCHLORINATED BIPHENYL COMPOUNDS

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

11. BIOCIDE CONDITION

The permittee shall not use any biocides except those approved in conjunction with the permit application. 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 Water Quality. Such notification shall include completion of Biocide Worksheet Form 101 and a map locating the discharge point and receiving stream. Completion of Biocide Worksheet Form 101 is not necessary for those outfalls containing toxicity testing. Division approval is not necessary for the introduction of new biocides into outfalls currently tested for whole effluent toxicity.

12. INTAKE SCREEN BACKWASH

Continued intake screen backwash discharge and overflow from the settling basin are permitted without limitations or monitoring requirements.

13. BEST MANAGEMENT PRACTICES

It has been determined from information submitted that the plans and procedures in place at Marshall Steam Station are equivalent to that of a Best Management Practice (BMP).

14. CHRONIC TOXICITY PASS/FAIL PERMIT LIMIT (QUARTERLY)

The effluent discharge shall at no time exhibit observable inhibition of reproduction or significant mortality to *Ceriodaphnia dubia* at an effluent concentration of 12%.

The permit holder shall perform at a minimum, *quarterly* monitoring using test procedures outlined in the "North Carolina *Ceriodaphnia* Chronic Effluent Bioassay Procedure," Revised February 1998, or subsequent versions or "North Carolina Phase II Chronic Whole Effluent Toxicity Test Procedure" (Revised-February 1998) or subsequent versions. The tests will be performed *during the months of* February, May, August, and November. Effluent sampling for this testing shall be performed at the NPDES permitted final effluent discharge below all treatment processes.

If the test procedure performed as the first test of any single quarter results in a failure or ChV below the permit limit, then multiple-concentration testing shall be performed at a minimum, in each of the two following months as described in "North Carolina Phase II Chronic Whole Effluent Toxicity Test Procedure" (Revised-February 1998) or subsequent versions.

The chronic value for multiple concentration tests will be determined using the geometric mean of the highest concentration having no detectable impairment of reproduction or survival and the lowest concentration that does have a detectable impairment of reproduction or survival. The definition of "detectable impairment," collection methods, exposure regimes, and further statistical methods are specified in the "North Carolina Phase II Chronic Whole Effluent Toxicity Test Procedure" (Revised-February 1998) or subsequent versions.

All toxicity testing results required as part of this permit condition will be entered on the Effluent Discharge Monitoring Form (MR-1) for the months in which tests were performed, using the parameter code TGP3B for the pass/fail results and THP3B for the Chronic Value. Additionally, DWQ Form AT-3 (original) is to be sent to the following address:

Attention: Environmental Sciences Section
North Carolina Division of
Water Quality
1621 Mail Service Center
Raleigh, North Carolina 27699-1621

Completed Aquatic Toxicity Test Forms shall be filed with the Environmental Sciences Section no later than 30 days after the end of the reporting period for which the report is made.

Test data shall be complete, accurate, include all supporting chemical/physical measurements and all concentration/response data, and be certified by laboratory supervisor and ORC or approved designate signature. Total residual chlorine of the effluent toxicity sample must be measured and reported if chlorine is employed for disinfection of the waste stream.

Should there be no discharge of flow from the facility during a month in which toxicity monitoring is required, the permittee will complete the information located at the top of the aquatic toxicity (AT) test form indicating the facility name, permit number, pipe number, county, and the month/year of the report with the notation of "No Flow" in the comment area of the form. The report shall be submitted to the Environmental Sciences Section at the address cited above.

Should the permittee fail to monitor during a month in which toxicity monitoring is required, monitoring will be required during the following month. Should any test data from this monitoring requirement or tests performed by the North Carolina Division of Water Quality indicate potential impacts to the receiving stream, this permit may be re-opened and modified to include alternate monitoring requirements or limits. If the Permittee monitors any pollutant more frequently then required by this permit, the results of such monitoring shall be included in the calculation & reporting of the data submitted on the DMR & all AT Forms submitted.

NOTE: Failure to achieve test conditions as specified in the cited document, such as minimum control organism survival, minimum control organism reproduction, and appropriate environmental controls,

shall constitute an invalid test and will require immediate follow-up testing to be completed no later than the last day of the month following the month of the initial monitoring.

15. ASH SETTLING BASIN

Beginning on the effective date of this permit and lasting until expiration, there shall be no discharge of plant wastes to the ash pond unless the permittee provides and maintains at all times a minimum free water volume equivalent to the sum of the maximum 24-hour plant discharges plus all direct rainfall and all runoff flows to the pond resulting from a 10-year, 24-hour rainfall event, when using a runoff coefficient of 1.0.

During the term of the permit, the permittee shall remove settled material from the ponds or otherwise enlarge the available storage capacities in order to maintain the required minimum volumes at all times. Annually the permittee shall determine and report to the permit issuing authority: (1) the actual free water volume of the ash pond, (2) physical measurements of the dimensions of the free water volume in sufficient detail to allow validation of the calculated volume, and (3) a certification that the required volume is available with adequate safety factor to include all solids expected to be deposited in the ponds for the following year. Any changes to plant operations affecting such certification shall be reported to the Director within five days.

NOTE: In the event that adequate volume has been certified to exist for the term of the permit, periodic certification is not needed.

16. CHEMICAL METAL CLEANING WASTES

It has been demonstrated that under certain conditions it is possible to reduce the concentration of metals in boiler cleaning wastes in the range of 92 to 99+ percent by treatment in ash ponds. Because of dilution problems, and the existence of boundary interface layers at the extremities of the plume, it is difficult to prove beyond doubt that the quantity of iron and copper discharged will always be less than one milligram per liter times the flow of metal cleaning when treated in this manner.

The application of physical/chemical methods of treating wastes has also been demonstrated to be effective in the treatment of metal cleaning wastes. However, the effectiveness of ash pond treatment should be considered in relation to the small differences in effluent quality realized between the two methods.

It has been demonstrated that the presence of ions of copper, iron, nickel, and zinc in the ash pond waters was not measurably increased during the ash pond equivalency demonstration at the Duke Energy's Marshall Steam Station. Therefore, when the following conditions are implemented during metal cleaning procedures, effective treatment for metals can be obtained at this facility:

(1) Large ash basin providing potential reaction volumes.
(2) Well-defined shallow ash delta near the ash basin influent.
(3) Ash pond pH of no less than 6.5 prior to metal cleaning waste addition.
(4) Four days retention time in ash pond with effluent virtually stopped.
(5) Boiler volume less than 86,000 gallons.
(6) Chemicals for cleaning to include only one or more of the following:
    (a) Copper removal step- sodium bromate, $NaBrO_3$; ammonium carbonate, $(NH_4)2CO_3$; and ammonium hydroxide, NH_4OH.
    (b) Iron removal step-hydrochloric acid, HCl; and ammonium bifluoride, $(NH_4)BF_2$ and proprietary inhibitors.
(7) Maximum dilution of wastes before entering ash pond 6 to 1.
(8) After treatment of metal cleaning wastes, if monitoring of basin effluents as required by the permit reveals discharges outside the limits of the permit, the permittee will re-close the basin discharge, conduct such in-basin sampling as necessary to determine the cause of nonconformance, will take appropriate corrective actions, and will file a report with EPA including all pertinent data.

17. FLOATING MATERIALS

The Permittee shall report all visible discharges of floating materials, such as an oil sheen, to the Director when submitting DMRs.

18. CHEMICAL DISCHARGES

Discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which may ultimately be released to lakes, rivers, streams or other waters of the United States is prohibited unless specifically authorized elsewhere in this permit. Discharge of chlorine from the use of chlorine gas, sodium hypochlorite, or other similar chlorination compounds for disinfection in plant potable and service water systems and in sewage treatment is authorized. Use of restricted use pesticides for lake management purposes by applicators licensed by the N.C. Pesticide Board is allowed.

19. PRIORITY POLLUTANT ANALYSIS

The Permittee shall conduct a priority pollutant analysis (in accordance with 40 CFR Part 136) once per permit cycle at outfall 002 and submit the results with the application for permit renewal.

20. WAIVERS

Nothing contained in this permit shall be construed as a waiver by permittee or any right to a hearing it may have pursuant to State or Federal laws or regulations.

21. SECTION 316 (B) OF CWA

The permittee shall comply with the Cooling Water Intake Structure Rule per 40 CFR 125.95.

22. GROUNDWATER MONITORING WELL CONSTRUCTION AND SAMPLING

The permittee shall conduct groundwater monitoring to determine the compliance of this NPDES permitted facility with the current groundwater Standards found under 15A NCAC 2L .0200. The monitoring shall be conducted in accordance with the Sampling Plan approved by the Division.

23. STRUCTURAL INTEGRITY INSPECTIONS OF ASH POND DAM

The facility shall meet the dam design and dam safety requirements per 15A NCAC 2K.

24. CWA SECTION 316(A) THERMAL VARIANCE

The thermal variance granted under Section 316(a) terminates on expiration of the NPDES permit. Should the permittee wish a continuation of its 316(a) thermal variance beyond the term of this permit, reapplication for such continuation shall be submitted in accordance with 40 CFR Part 125, Subpart H and Section 122.21(1)(6) not later than 180 days prior to permit expiration. Reapplication shall include a basis for continuation such as a) plant operating conditions and load factors are unchanged and are expected to remain so for the term of the reissued permit; b) there are no changes to plant discharges or other discharges in the plant site area which could interact with the thermal discharges; and c) there are no changes to the biotic community of the receiving water body which would impact the previous variance determination.

The next 316 (a) studies shall be performed in accordance with the Division of Water Quality approved plan. The temperature analysis and the balanced and indigenous study plan shall conform to the specifications outlined in 40 CFR 125 Subpart H and the EPA's Draft 316a Guidance Manual, dated 1977. The EPA shall be provided an opportunity to review the plan prior to the commencement of the study.

25. FISH TISSUE MONITORING NEAR ASH POND DISCHARGE

The facility shall conduct fish tissue monitoring once during the permit term and submit the results with the NPDES permit renewal application. The objective of the monitoring is to evaluate potential uptake of pollutants by fish tissue near the Ash Pond discharge. The parameters analyzed in fish tissue shall be arsenic, selenium, and mercury. The monitoring shall be conducted in accordance with the Sampling Plan approved by the Division.

26. INSTREAM MONITORING

The facility shall conduct semiannual in stream monitoring (one upstream and one downstream of the ash pond discharge) for arsenic, selenium, mercury, chromium, lead, cadmium, copper, zinc, and total dissolved solids (TDS). Instream monitoring should be conducted at the stations that have already been established through the BIP monitoring program. The monitoring results shall be submitted with the NPDES permit renewal application.