STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER RESOURCES

Draft 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

Rogers Energy Complex
573 Duke Power Rd
Mooresboro
Cleveland & Rutherford County

to receiving waters designated as the Broad River in the Broad 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

This permit and authorization to discharge shall expire at midnight on August 31, 2023.

Signed this day

S. Daniel Smith, Director
Division of Water Resources
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. As of this permit 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 operate the following systems located at the **Rogers Energy Complex**, 573 Duke Power Rd, Mooresboro, in Rutherford & Cleveland Counties:

- **Outfall 002 - Ash Basin Treatment System**. Continue to discharge treated wastewater from the ash basin through outfall 002, containing low volume wastes, coal pile runoff, metal cleaning wastes, treated domestic wastewater, chemical metal cleaning wastes, water treatment system wastewaters, ash transport water, landfill leachate (landfill contains fly and bottom ash, and gypsum from FGD system), cooling towers blowdown, runoff from limestone stacking area and gypsum stacking area. Upon commencement of the discharge from Outfall 005 Wastewater Treatment System discharge wastewater from the ash basin decanting and dewatering.

- **Internal Outfall 004 - Flue Gas Desulfurization Treatment System**. Continue to operate a FGD wet scrubber treatment system consisting of equalization tank, reaction tank, clarifier, filters, and effluent tank discharging to the ash basin (Outfall 002). Upon commencement of the discharge from Outfall 005 Wastewater Treatment System discharge the effluent from the FGD treatment system and the heat exchanger non-contact cooling water combined with the effluent of the Wastewater Treatment System (outfall 005).

- **Outfall 005 – Wastewater Treatment System (WWTS).** Upon commencement of the discharge from the new Wastewater Treatment System, discharge holding basin effluent (Outfall 002C – Unit 5 fly ash silo sump, coal pile runoff, gypsum pile runoff and limestone pile runoff), Basement Basin effluent (RO reject, Unit 5 process and stormwater and Unit 6 sanitary system), Unit 6 cooling tower blowdown, landfill leachate, Unit 6 process sump (mechanical drag chain overflow, and cooling tower raw water treatment wastwaters, Unit 5 process sump (sanitary system, low volume wastes, mechanical drag chain overflow and cooling tower blowdown), ash basin dewatering/decanting. The FGD WWTS discharge (Internal Outfall 004) and heat exchanger non-contact cooling water will be combined with the discharge from the WWTS before discharge to the Broad River.

- **Outfall 002B - Basement Basin Overflow**. Discharge overflow from a 100 yr 24 hr storm event. The Basement Basin receives wastewater from the Unit 6 sanitary system, Unit 5 stormwater and low volume wastes and RO reject.

- **Outfall 002C - Holding Basin Emergency Overflow**. Discharge overflow from a 100 yr 24 hr storm event from the Holding Basin. The Holding Basing receives wastewater from the coal pile runoff, gypsum pile runoff, limestone pile runoff, Unit 5 fly ash silo sump and Basement Basin auxiliary basin overflow.

- **Outfalls 104 and 106 - Constructed Seeps**. Continue to discharge seepage from outfall 104 (lat 35° 13′ 3.5″ long 81° 45′ 9.3″) and outfall 106 (lat 35° 13′ 6.3″ long 81° 44′ 53.7″).

2. Discharge from said outfalls at the location specified on the attached map into the Broad River classified as WS-IV water in the Broad River Basin. Outfall 106 discharge is to an UT of the Broad River.

PART I

A. (1.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS [15A NCAC 02B .0400 et seq., 02B .0500 et seq.]

During the period beginning on the effective date of the permit and lasting until commencement of dewatering or expiration, the Permittee is authorized to discharge from **outfall 002 – ash pond effluent (decanting the free water above the settled ash layer that does not involve mechanical disturbance of the ash**). Such discharges shall be limited and monitored[1] by the Permittee as specified below:

Effluent Characteristics	Discharge Limitations		Monitoring Requirements		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[2]
Flow (MGD)			Weekly	Calculation or similar readings	E
Oil and Grease	15.0 mg/L	20.0 mg/L	Monthly	Grab	E
Total Suspended Solids[3,4]	30.0 mg/L	50.0 mg/L	Monthly	Grab	E
Total Copper	102 µg/L	111 µg/L	See Note 5	Grab	E
Total Iron	1.0 mg/L	1.0 mg/L	See Note 5	Grab	E
Total Chromium	0.2 mg/L	0.2 mg/L	Monthly	Grab	E
Total Zinc	1.0 mg/L	1.0 mg/L	Monthly	Grab	E
Total Residual Chlorine[6]		28 µg/L	2/Month	Grab	E
Total Selenium, µg/L			Weekly	Grab	E
Total Arsenic, µg/L			Weekly	Grab	E
Total Mercury [7], ng/L			Weekly	Grab	E
Total Cadmium, µg/L			Monthly	Grab	E
Total Lead, µg/L			Monthly	Grab	E
Total Thallium, µg/L			Monthly	Grab	E
Total Bromide, µg/L			Monthly	Grab	E
pH [8]	6.0 to 9.0 S.U.		2/Month	Grab	E
Total Dissolved Solids			Monthly	Grab	E
Hardness–Total as [$CaCO_3$ or (Ca + Mg)] mg/L			Quarterly	Grab	E
Turbidity [9], NTU			Monthly	Grab	E
BOD_5	30 mg/l	45 mg/l	Monthly	Grab	E
Fecal Coliform	200/100 mL	400/100 mL	Monthly	Grab	E
Total Nitrogen (NO_2+NO_3+TKN)			Quarterly	Grab	E
Total Phosphorus			Quarterly	Grab	E
Chronic Toxicity [10]			Quarterly	Grab	E
Temperature			Weekly	Grab	E

126 pollutants contained in chemicals added for cooling tower maintenance (except Total chromium and Total Zinc)	No detectable amounts [11]	Annual	Grab	E

Notes:

1. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. See Special Condition A. (28).
2. Sample Locations: E – Effluent; Effluent sampling shall be conducted at the discharge from the ash settling pond prior to mixing with any other waste streams.
3. A total suspended solids monthly average of 50 mg/L is permitted provided that the permittee can satisfactorily demonstrate that the difference between the monthly average of 30 mg/L and 50 mg/L is the result of the concentration of total suspended solids in the intake water.
4. The facility shall continuously monitor TSS concentration when the decanting process commences (and the pump is operating) and the decanting pump shall be shut off automatically when one half of the Daily Maximum limit (15 minutes average) is exceeded. Pumping will be allowed to continue if interruption might result in a dam failure or damage.
5. Monitoring shall be per occurrence of chemical metal cleaning and sample shall be from a representative discharge.
6. The Division shall consider all effluent TRC values reported below 50 µg/L to be in compliance with the permit. However, the permittee shall continue to record and submit all values reported by a North Carolina certified laboratory (including field certified), even if these values fall below 50 µg/L. Neither free available chlorine (FAC) nor TRC may be discharged from any single generating unit for more than two hours in any single day, and not more than one unit in the plant may discharge FAC or TRC, unless the discharger demonstrates to the Division that the unit(s) cannot operate at or below this level of chlorination.
7. The facility shall employ method 1631E.
8. The facility shall continuously monitor pH when the decanting process commences (and the pump is operating) and the decanting pump shall be shut off automatically when 15 minutes running average pH falls below 6.1 standard units or rises above 8.9 standard units. Pumping will be allowed to continue if interruption might result in a dam failure or damage.
9. The discharge from this facility shall not cause turbidity in the receiving stream to exceed 50 NTU. If the instream turbidity exceeds 50 NTU due to natural background conditions, the discharge cannot cause turbidity to increase in the receiving stream. Therefore, if the effluent measurement exceeds 50 NTU, the Permittee shall sample upstream and downstream turbidity in the receiving waterbody, within 24 hours, to demonstrate the existing turbidity level in the receiving waterbody was not increased. All data shall be reported on the DMRs. (See 15A NCAC 2B .0211 (21)). NTU - Nephelometric Turbidity Unit
10. Chronic Toxicity (Ceriodaphnia) P/F at 7.7 % quarterly; See condition A. (9) of this permit.
11. Limitations and monitoring requirements for the 126 Priority Pollutants (per 40 CFR Part 423, Appendix A, exclusive of zinc and chromium) apply only if these substances are added by the permittee for cooling tower maintenance. Compliance with the limitations for the 126 priority pollutants in 40 CFR 423.13 (d)(1) may be determined by engineering calculations which demonstrate that the regulated pollutants are not detectable in the final discharge by the analytical methods in 40 CFR Part 136. All primary industries are required to submit a priority pollutant analysis in accordance with 40 CFR Part 122 with their application for permit renewal.

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

By November 1, 2020 there shall be no discharge of pollutants in bottom ash transport waters. This requirement only applies to bottom ash transport water generated after November 1, 2020.

In accordance with N.C.G.S. § 130A-309.210, by December 31, 2019, the facility shall convert to the disposal of dry

bottom ash, as defined in the Coal Ash Management Act ("CAMA").

Fly ash is dry handled at this facility.

The facility is allowed to drawdown the wastewater in the ash pond to no less than three feet above the ash.

The facility shall use a floating pump station during decanting with free water skimmed from the basin surface using an adjustable weir.

The limits and conditions in Section A. (2) of the permit apply when water in the ash settling basin is lowered below the three feet trigger mark, measured at the pump intake.

The facility shall notify via e-mail DWR Complex NPDES Permitting Unit and DWR Asheville Regional Office seven calendar days prior to the commencement of the dewatering.

The rate for lowering the liquid level in a coal ash pond shall not exceed one (1) foot per day unless a higher rate is supported to the satisfaction of DEMLR and in accordance with NCAC, Title 15A, Subchapter 2K.

When the facility commences the ash pond decanting/dewatering, the facility shall treat the wastewater discharged from the ash pond using physical-chemical treatment, if necessary, to assure state Water Quality Standards are not contravened in the receiving stream. Duke Energy shall notify DWR NPDES Permitting and DWR Asheville Regional Office, in writing, within seven calendar days of installing additional physical-chemical treatment at this Outfall.

If any one of the pollutants (As, Se, Hg, Ni, and Pb) reaches 85% of the allowable level during the decanting/dewatering, the facility shall immediately discontinue discharge of the wastewater and report it to the Regional Office and Complex NPDES Permitting Branch via telephone and e-mail.

A. (2.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS [15A NCAC 02B .0400 et seq., 02B .0500 et seq.]

During the period beginning on the commencement of the dewatering operation and lasting until permit expiration, the Permittee is authorized to discharge from **outfall 002 (Dewatering - removing the interstitial water).** Such discharges shall be limited and monitored[1] by the Permittee as specified below:

Effluent Characteristics	Discharge Limitations		Monitoring Requirements		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[2]
Flow (MGD)		1 MGD	Weekly	Calculation or similar readings	Effluent
Oil and Grease	15.0 mg/L	20.0 mg/L	Monthly	Grab	Effluent
Total Suspended Solids[3]	30.0 mg/L	50.0 mg/L	Monthly	Grab	Effluent
Total Chromium	0.2 mg/L	0.2 mg/L	Weekly	Grab	Effluent
Total Zinc	1.0 mg/L	1.0 mg/L	Weekly	Grab	Effluent
Total Cadmium, µg/L			Weekly	Grab	Effluent
Total Copper, µg/L			Weekly	Grab	Effluent
Total Iron, µg/L			Weekly	Grab	Effluent
Total Lead, µg/L			Weekly	Grab	Effluent
Total Mercury[4], ng/L			Weekly	Grab	Effluent
Total Arsenic, µg/L			Weekly	Grab	Effluent
Total Selenium, µg/L			Weekly	Grab	Effluent
Total Molybdenum, µg/L			Weekly	Grab	Effluent
Total Thallium, µg/L			Weekly	Grab	Effluent
Total Bromide, µg/L			Weekly	Grab	Effluent
Total Dissolved Solids, mg/L			Weekly	Grab	Effluent
Chronic Toxicity[5]			Monthly	Grab	Effluent
Total Nitrogen (NO_2+NO_3+TKN)			Quarterly	Grab	Effluent
Total Phosphorus			Quarterly	Grab	Effluent
pH [6]	6.0 to 9.0 S.U		2/Month	Grab	Effluent
Turbidity [7], NTU			Weekly	Grab	Effluent
Hardness–Total as [$CaCO_3$ or (Ca + Mg)] mg/L			Quarterly	Grab	Effluent
Temperature			Weekly	Grab	Effluent
126 pollutants contained in chemicals added for cooling tower maintenance (except Total chromium and Total Zinc)	No detectable amounts [8]		Annual	Grab	Effluent

Notes:

1. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. See Special Condition A. (28).
2. Sample Locations: Effluent sampling shall be conducted at the discharge from the ash settling pond prior to mixing with any other waste streams.
3. The facility shall continuously monitor TSS concentration when the dewatering process commences (and the pump is operating) and the dewatering pump shall be shut off automatically when one half of the Daily Maximum limit (15 minutes average) is exceeded. Pumping will be allowed to continue if interruption might result in a dam failure or damage.
4. The facility shall employ method 1631E.
5. Chronic Toxicity Monthly (Ceriodaphnia) P/F at 0.5 %; See condition A. (10) of this permit.
6. The facility shall continuously monitor pH when the dewatering process commences (and the pump is operating) and the dewatering pump shall be shut off automatically when 15 minutes running average pH falls below 6.1 standard units or rises above 8.9 standard units. Pumping will be allowed to continue if interruption might result in a dam failure or damage.
7. The discharge from this facility shall not cause turbidity in the receiving stream to exceed 50 NTU. If the instream turbidity exceeds 50 NTU due to natural background conditions, the discharge cannot cause turbidity to increase in the receiving stream. Therefore, if the effluent measurement exceeds 50 NTU, the Permittee shall sample upstream and downstream turbidity in the receiving waterbody, within 24 hours, to demonstrate the existing turbidity level in the receiving waterbody was not increased. All data shall be reported on the DMRs. (See 15A NCAC 2B .0211 (21)). NTU - Nephelometric Turbidity Unit
8. Limitations and monitoring requirements for the 126 Priority Pollutants (per 40 CFR Part 423, Appendix A, exclusive of zinc and chromium) apply only if these substances are added by the permittee for cooling tower maintenance. Compliance with the limitations for the 126 priority pollutants in 40 CFR 423.13 (d)(1) may be determined by engineering calculations which demonstrate that the regulated pollutants are not detectable in the final discharge by the analytical methods in 40 CFR Part 136. All primary industries are required to submit a priority pollutant analysis in accordance with 40 CFR Part 122 with their application for permit renewal.

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

By November 1, 2020 there shall be no discharge of pollutants in bottom ash transport waters. This requirement only applies to bottom ash transport water generated after November 1, 2020.

In accordance with N.C.G.S. § 130A-309.210, by December 31, 2019, the facility shall convert to the disposal of dry bottom ash, as defined in the Coal Ash Management Act ("CAMA").

Fly ash is dry handled at this facility.

There shall be no discharge of metal cleaning wastes to the ash basin once the dewatering operations commence.

The facility shall notify via e-mail DWR Complex NPDES Permitting Unit and DWR Asheville Regional Office seven calendar days prior to the commencement of the dewatering.

The rate for lowering the liquid level in a coal ash pond shall not exceed one (1) foot per day unless a higher rate is supported to the satisfaction of DEMLR and in accordance with NCAC, Title 15A, Subchapter 2K.

When the facility commences the ash pond decanting/dewatering, the facility shall treat the wastewater discharged from the ash pond using physical-chemical treatment, if necessary, to assure state Water Quality Standards are not contravened in the receiving stream. Duke Energy shall notify DWR NPDES Permitting and DWR Asheville Regional Office, in writing, within seven calendar days of installing additional physical-chemical treatment at this Outfall.

If any one of the pollutants (As, Se, Hg, Ni, and Pb) reaches 85% of the allowable level during the decanting/dewatering, the facility shall immediately discontinue discharge of the wastewater and report it to the Regional Office and Complex NPDES Permitting Branch via telephone and e-mail.

A. (3) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS [15A NCAC 02B .0400 et seq., 02B .0500 et eq.]

During the period beginning upon commencement of operations of the new holding cell and lasting until expiration, the Permittee is authorized to discharge from **outfall 002B – Basement Basin Emergency Overflow**. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

Effluent Characteristics	Discharge Limitations		Monitoring Requirements		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow (MGD)			Per discharge event	Estimate	Effluent
Oil and Grease	15 mg/L	20 mg/L	Per discharge event	Grab	Effluent
Total Suspended Solids	30 mg/L	100 mg/L	Per discharge event	Grab	Effluent
pH	6.0 to 9.0 S.U.		Per discharge event	Grab	Effluent
BOD_5	30 mg/L	45 mg/L	Per discharge event	Grab	Effluent
Fecal Coliform	200/100 mL	400/100 mL	Per discharge event	Grab	Effluent
Total Copper	102 µg/L	111 µg/L	See Note 2	Grab	Effluent
Total Iron	1.0 mg/L	1.0 mg/L	See Note 2	Grab	Effluent
Acute Toxicity[3]			Per discharge event	Grab	Effluent

Notes:

1. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. See Special Condition A. (28).
2. Monitor only if the emergency overflow is used when chemical metal cleaning waste is being discharged.
3. Acute Toxicity – Per discharge event, See Special Condition A. (12).

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

Episodic sampling is required per occurrence when pond overflows occur for longer than one hour. All samples shall be of a representative discharge. The Division shall be notified in writing when the basin discharges and the duration of the discharge. This notification shall be submitted within 10 days of the discharge to the following address:

Asheville Water Quality Regional Operations Section
2090 U.S. 70 Highway
Swannanoa, NC 28778-8211

NPDES Complex Permitting Unit
1617 Mail Service Center
Raleigh, NC 227699-1617

A. (4) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS [15A NCAC 02B .0400 et seq., 02B .0500 et seq.]

During the period beginning upon commencement of operations of the new holding basin and lasting until expiration, the Permittee is authorized to discharge from **outfall 002C – Holding Basin Emergency Overflow**. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

Effluent Characteristics	Discharge Limitations		Monitoring Requirements		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow (MGD)			Per discharge event	Estimate	Effluent
Oil and Grease	15 mg/L	20 mg/L	Per discharge event	Grab	Effluent
Total Suspended Solids	30 mg/L	50 mg/L	Per discharge event	Grab	Effluent
pH	6.0 to 9.0 S.U.		Per discharge event	Grab	Effluent
BOD_5	30mg/L	45 mg/L	Per discharge event	Grab	Effluent
Fecal Coliform	200/100 mL	400/100 mL	Per discharge event	Grab	Effluent
Total Copper	102 µg/L	111 µg/L	See Note 2	Grab	Effluent
Total Iron	1.0 mg/L	1.0 mg/L	See Note 2	Grab	Effluent
Acute Toxicity[3]			Per discharge event	Grab	Effluent

Notes:
1. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. See Special Condition A. (28).
2. Monitor only if the emergency overflow is used when chemical metal cleaning waste is being discharged.
3. Acute Toxicity – Per discharge event, See Special Condition A. (12).

Episodic sampling is required per occurrence when pond overflows occur for longer than one hour. All samples shall be of a representative discharge. The Division shall be notified in writing when the basin discharges and the duration of the discharge. This notification shall be submitted within 10 days of the discharge to the following address:

Asheville Water Quality Regional Operations Section
2090 U.S. 70 Highway
Swannanoa, NC 28778-8211

NPDES Complex Permitting Unit
1617 Mail Service Center
Raleigh, NC 227699-1617

A. (5.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS [15A NCAC 02B .0400 et seq., 02B .0500 et seq.]

During the period beginning on the effective date of the permit and lasting until expiration, the Permittee is authorized to discharge from **internal outfall 004 – FGD Wastewater Treatment System**. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

Effluent Characteristics	Discharge Limitations		Monitoring Requirements		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[2]
Flow			Monthly	Pump Logs or similar readings	Effluent
Total Suspended Solids	30 mg/L	100 mg/L	Quarterly	Grab	Effluent
Oil and Grease	15 mg/L	20 mg/L	Quarterly	Grab	Effluent
Total Arsenic[3]	8 µg/L	11 µg/L	Quarterly	Grab	Effluent
Total Mercury[3,4]	356 ng/L	788 ng/L	Quarterly	Grab	Effluent
Total Selenium[3]	12 µg/L	23 µg/L	Quarterly	Grab	Effluent
Nitrate & Nitrite as N[3]	4.4 mg/L	17 mg/L	Quarterly	Grab	Effluent
pH			Quarterly	Grab	Effluent

Notes:

1. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. See Special Condition A. (28).
2. Samples taken in compliance with the monitoring requirements listed above shall be taken prior to mixing with other sources of wastewater.
3. In accord with the Steam Electric Effluent Limitations Guidelines for FGD wastewater (40 C.F.R. 423), these limits shall become effective on December 31, 2023. This permit may be reopened and modified if changes are made to 40 C.F.R. 423.
4. The facility shall employ method 1631E.

A. (6.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS [15A NCAC 02B .0400 et seq., 02B .0500 et seq.]

During the period beginning upon commencement of discharge from the new WWTS and lasting until permit expiration, the Permittee is authorized to discharge from **outfall 005 – WWTS.** Such discharges shall be limited and monitored[1] by the Permittee as specified below:

Effluent Characteristics	Discharge Limitations		Monitoring Requirements		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[2]
Flow (MGD)			Continuous	Recorder[3]	E
Oil and Grease	15.0 mg/L	20.0 mg/L	2/Month	Grab	E
Total Suspended Solids	30.0 mg/L	50.0 mg/L	2/Month	Composite	E
Total Copper	251 µg/L	272 µg/L	See Note 4	Grab	E
Total Iron	1.0 mg/L	1.0 mg/L	See Note 4	Grab	E
Total Chromium	0.2 mg/L	0.2 mg/L	Monthly	Grab	E
Total Zinc	1.0 mg/L	1.0 mg/L	Monthly	Grab	E
Chronic Toxicity[5]			Quarterly	Composite	E
Total Nitrogen (NO_2+NO_3+TKN)			Quarterly	Composite	E
Total Phosphorus			Quarterly	Composite	E
pH	6.0 to 9.0 S.U.		2/Month	Grab	E
Total Residual Chlorine[6]		28 µg/L	2/Month	Grab	E
BOD, 5-day, 20° C	30.0 mg/L	45.0 mg/L	Monthly	Composite	E
Fecal Coliform (geo. mean)	200/100 mL	400/100 mL	Monthly	Grab	E
Hardness–Total as [$CaCO_3$ or (Ca + Mg)] mg/L			Quarterly	Grab	E, U
Temperature[7]		100 °F	Weekly	Grab	E
Temperature			Weekly	Grab	U, D
Total Selenium[8], µg/L			Monthly/Weekly	Grab	E
Total Cadmium[8], µg/L			Monthly/Weekly	Grab	E
Total Mercury[8,9], ng/L			Monthly/Weekly	Grab	E
Total Arsenic[8], µg/L			Monthly/Weekly	Grab	E
Total Lead[8], µg/L			Monthly/Weekly	Grab	E
Total Thallium[8] µg/L			Monthly/Weekly	Grab	E
Total Bromide[8], µg/L			Monthly/Weekly	Grab	E
Total Molybdenum[8], µg/L			Monthly/Weekly	Grab	E
Total Dissolved Solids[8] ,mg/L			Monthly/Weekly	Grab	E
126 pollutants contained in chemicals added for cooling tower maintenance (except Total chromium and Total Zinc)	No detectable amounts [10]		Annual	Grab	E

Notes:

1. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. See Special Condition A. (28).
2. Sample Locations: E – Effluent from treatment system prior to mixing with other sources of wastewater, U - upstream at the Station Intake, and D- at least 476 feet from the discharge.
3. Flow may be measured by pump logs.
4. Monitoring shall be per occurrence of chemical metal cleaning and sample shall be from a representative discharge.
5. Chronic Toxicity (Ceriodaphnia) P/F at 3.14%; March, June, September, and December; See Special Condition A. (11) of this permit.
6. The Division shall consider all effluent TRC values reported below 50 µg/L to be in compliance with the permit. However, the permittee shall continue to record and submit all values reported by a North Carolina certified laboratory (including field certified), even if these values fall below 50 µg/L. Neither free available chlorine (FAC) nor TRC may be discharged from any single generating unit for more than two hours in any single day, and not more than one unit in the plant may discharge FAC or TRC, unless the discharger demonstrates to the Division that the unit(s) cannot operate at or below this level of chlorination.
7. See Special Condition A. (27) Temperature Mixing Zone.
8. Monthly monitoring is required during normal operations and decanting, weekly monitoring during dewatering.
9. The facility shall employ method 1631E.
10. Limitations and monitoring requirements for the 126 Priority Pollutants (per 40 CFR Part 423, Appendix A, exclusive of zinc and chromium) apply only if these substances are added by the permittee for cooling tower maintenance. Compliance with the limitations for the 126 priority pollutants in 40 CFR 423.13 (d)(1) may be determined by engineering calculations which demonstrate that the regulated pollutants are not detectable in the final discharge by the analytical methods in 40 CFR Part 136. All primary industries are required to submit a priority pollutant analysis in accordance with 40 CFR Part 122 with their application for permit renewal.

Within 180 days of the commencement of operations of the treatment system the permittee shall submit Items V and VI of NPDES application Form 2C.

All domestic wastewater produced at the power plant is to be fully treated through the onsite wastewater treatment system prior to being discharged.

The permittee shall obtain authorization from the Division prior to using any biocide in the cooling water; see condition A. (20).

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

See Special condition A. (29) Notification of Start-up.

A. (7.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall 104 [15A NCAC 02B .0400 et seq., 02B .0500 et seq.]

During the period beginning on the effective date of this permit and lasting until expiration, the Permittee is authorized to discharge from **outfall 104 – constructed seep**. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

Effluent Characteristics	Discharge Limitations		Monitoring Requirements		
	Monthly Average	Daily Maximum	Measurement Frequency[2]	Sample Type	Sample Location
Flow, MGD			Monthly/Quarterly	Estimate	Effluent
pH	6.0 to 9.0 S.U.		Monthly/Quarterly	Grab	Effluent
TSS	30.0 mg/L	100.0 mg/L	Monthly/Quarterly	Grab	Effluent
Oil and Grease	15.0 mg/L	20.0 mg/L	Monthly/Quarterly	Grab	Effluent
Fluoride, µg/L			Monthly/Quarterly	Grab	Effluent
Total Mercury[3], ng/L			Monthly/Quarterly	Grab	Effluent
Total Barium, mg/L			Monthly/Quarterly	Grab	Effluent
Total Iron, µg/L			Monthly/Quarterly	Grab	Effluent
Total Manganese, µg/L			Monthly/Quarterly	Grab	Effluent
Total Zinc, µg/L			Monthly/Quarterly	Grab	Effluent
Total Arsenic, µg/L			Monthly/Quarterly	Grab	Effluent
Total Cadmium, µg/L			Monthly/Quarterly	Grab	Effluent
Total Chromium, µg/L			Monthly/Quarterly	Grab	Effluent
Total Copper, µg/L			Monthly/Quarterly	Grab	Effluent
Total Lead, µg/L			Monthly/Quarterly	Grab	Effluent
Total Nickel, µg/L			Monthly/Quarterly	Grab	Effluent
Total Selenium, µg/L			Monthly/Quarterly	Grab	Effluent
Nitrate/nitrite as N, mg/L			Monthly/Quarterly	Grab	Effluent
Sulfates, mg/L			Monthly/Quarterly	Grab	Effluent
Chlorides, mg/L			Monthly/Quarterly	Grab	Effluent
TDS, mg/L			Monthly/Quarterly	Grab	Effluent
Total Hardness, mg/L			Monthly/Quarterly	Grab	Effluent
Turbidity[4]			Monthly/Quarterly	Grab	Effluent
Temperature, ^{0}C			Monthly/Quarterly	Grab	Effluent
Conductivity, µmho/cm			Monthly/Quarterly	Grab	Effluent

Notes:

1. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. See Special Condition A. (28).
2. The facility shall conduct monthly sampling from the effective date of the permit. After one year from the effective date of the permit the monitoring will be reduced to quarterly.
3. The facility shall use EPA method 1631E.
4. The discharge from this facility shall not cause turbidity in the receiving stream to exceed 50 NTU. If the instream turbidity exceeds 50 NTU due to natural background conditions, the discharge cannot cause turbidity to increase in the receiving stream. Therefore, if the effluent measurement exceeds 50 NTU, the Permittee shall sample upstream and downstream turbidity in the receiving waterbody, within 24 hours, to demonstrate the existing turbidity level in the receiving waterbody was not increased. All data shall be reported on the DMRs. (See 15A NCAC 2B .0211 (21)).

If no discharge occurs during the reporting period or the Permittee is unable to obtain a representative sample due to low-flow conditions at the seep, the Permittee shall submit its DMR, as required, and indicate "No Flow" for the seep outfall (15A NCAC 02B .0506(a)(1)(E)).

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

A. (8) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall 106 [15A NCAC 02B .0400 et seq., 02B .0500 et seq.]

During the period beginning on the effective date of this permit and lasting until expiration, the Permittee is authorized to discharge from **outfall 106 – constructed seep (Toe Drain)**. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

Effluent Characteristics	Discharge Limitations		Monitoring Requirements		
	Monthly Average	Daily Maximum	Measurement Frequency[2]	Monthly Average	Daily Maximum
Flow, MGD			Monthly/Quarterly	Estimate	Effluent
pH	6.0 to 9.0 S.U.		Monthly/Quarterly	Grab	Effluent
TSS	30.0 mg/L	100.0 mg/L	Monthly/Quarterly	Grab	Effluent
Oil and Grease	15.0 mg/L	20.0 mg/L	Monthly/Quarterly	Grab	Effluent
Fluoride, µg/L			Monthly/Quarterly	Grab	Effluent
Total Aluminum	6.5 mg/L		Monthly/Quarterly	Grab	Effluent
Total Mercury[3], ng/L			Monthly/Quarterly	Grab	Effluent
Total Barium, mg/L			Monthly/Quarterly	Grab	Effluent
Total Iron, µg/L			Monthly/Quarterly	Grab	Effluent
Total Manganese, µg/L			Monthly/Quarterly	Grab	Effluent
Total Zinc, µg/L			Monthly/Quarterly	Grab	Effluent
Total Arsenic, µg/L			Monthly/Quarterly	Grab	Effluent
Total Cadmium, µg/L			Monthly/Quarterly	Grab	Effluent
Total Chromium, µg/L			Monthly/Quarterly	Grab	Effluent
Total Copper, µg/L			Monthly/Quarterly	Grab	Effluent
Total Lead, µg/L			Monthly/Quarterly	Grab	Effluent
Total Nickel, µg/L			Monthly/Quarterly	Grab	Effluent
Total Selenium, µg/L			Monthly/Quarterly	Grab	Effluent
Nitrate/nitrite as N, mg/L			Monthly/Quarterly	Grab	Effluent
Sulfates, mg/L			Monthly/Quarterly	Grab	Effluent
Chlorides, mg/L			Monthly/Quarterly	Grab	Effluent
Total Dissolved Solids	500 mg/L		Monthly/Quarterly	Grab	Effluent
Total Hardness, mg/L			Monthly/Quarterly	Grab	Effluent
Turbidity[4]			Monthly/Quarterly	Grab	Effluent
Temperature, ^{0}C			Monthly/Quarterly	Grab	Effluent
Conductivity, µmho/cm			Monthly/Quarterly	Grab	Effluent

Notes:

1. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. See Special Condition A. (28).
2. The facility shall conduct monthly sampling from the effective date of the permit. After one year from the effective date of the permit the monitoring will be reduced to quarterly.
3. The facility shall use EPA method 1631E.
4. The discharge from this facility shall not cause turbidity in the receiving stream to exceed 50 NTU. If the instream turbidity exceeds 50 NTU due to natural background conditions, the discharge cannot cause turbidity to increase in the receiving stream. Therefore, if the effluent measurement exceeds 50 NTU, the Permittee shall sample upstream and downstream turbidity in the receiving waterbody, within 24 hours, to demonstrate the existing turbidity level in the receiving waterbody was not increased. All data shall be reported on the DMRs. (See 15A NCAC 2B .0211 (21)).

If no discharge occurs during the reporting period or the Permittee is unable to obtain a representative sample due to low-flow conditions at the seep, the Permittee shall submit its DMR, as required, and indicate "No Flow" for the seep outfall (15A NCAC 02B .0506(a)(1)(E)).

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

A. (9.) CHRONIC TOXICITY PERMIT LIMIT (Quarterly) (Outfall 002 - Ash Pond decanting) [15A NCAC 02B .0400 et seq., 02B .0500 et seq.]

The effluent discharge shall at no time exhibit observable inhibition of reproduction or significant mortality to ***Ceriodaphnia dubia*** at an effluent concentration of 7.7 %.

The permit holder shall perform at a minimum, *quarterly* monitoring using test procedures outlined in the "North Carolina *Ceriodaphnia* Chronic Effluent Bioassay Procedure," Revised December 2010, or subsequent versions or "North Carolina Phase II Chronic Whole Effluent Toxicity Test Procedure" (Revised- December 2010) or subsequent versions. The tests will be performed **during the months of January, April, July and October**. These months signify the first month of each three-month toxicity testing quarter assigned to the facility. Effluent sampling for this testing must be obtained during representative effluent discharge and shall be performed at the NPDES permitted final effluent discharge below all treatment processes. Effluent sampling for this testing must be obtained during representative effluent discharge and 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-December 2010) 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, DWR Form AT-3 (original) is to be sent to the following address:

Attention: North Carolina Division of Water Resources
Water Sciences Section/Aquatic Toxicology Branch
1621 Mail Service Center
Raleigh, NC 27699-1621

Completed Aquatic Toxicity Test Forms shall be filed with the Water 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 Water 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. Assessment of toxicity compliance is based on the toxicity testing quarter, which is the three month time interval that begins on the first day of the month in which toxicity testing is required by this permit and continues until the final day of the third month.

Should any test data from this monitoring requirement or tests performed by the North Carolina Division of Water Resources indicate potential impacts to the receiving stream, this permit may be re-opened and modified to include alternate monitoring requirements or limits.

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.

A. (10.) CHRONIC TOXICITY PERMIT LIMIT (MONTHLY) (Outfall 002 - Ash Pond Dewatering) [15A NCAC 02B .0400 et seq., 02B .0500 et seq.]

The effluent discharge shall at no time exhibit observable inhibition of reproduction or significant mortality to ***Ceriodaphnia dubia*** at an effluent concentration of 0.5 %.

The permit holder shall perform at a minimum, *monthly* monitoring using test procedures outlined in the "North Carolina *Ceriodaphnia* Chronic Effluent Bioassay Procedure," Revised December 2010, or subsequent versions or "North Carolina Phase II Chronic Whole Effluent Toxicity Test Procedure" (Revised- December 2010) or subsequent versions. Effluent sampling for this testing must be obtained during representative effluent discharge and 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-December 2010) 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, DWR Form AT-3 (original) is to be sent to the following address:

Attention: North Carolina Division of Water Resources
Water Sciences Section/Aquatic Toxicology Branch
1621 Mail Service Center
Raleigh, NC 27699-1621

Completed Aquatic Toxicity Test Forms shall be filed with the Water 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 Water 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. Assessment of toxicity compliance is based on the toxicity testing quarter, which is the three month time interval that begins on the first day of the month in which toxicity testing is required by this permit and continues until the final day of the third month.

Should any test data from this monitoring requirement or tests performed by the North Carolina Division of Water Resources indicate potential impacts to the receiving stream, this permit may be re-opened and modified to include alternate monitoring requirements or limits.

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.

A. (11.) CHRONIC TOXICITY PERMIT LIMIT (QUARTERLY) (Outfall 005) [15A NCAC 02B .0400 et seq., 02B .0500 et seq.]

The effluent discharge shall at no time exhibit observable inhibition of reproduction or significant mortality to ***Ceriodaphnia dubia*** at an effluent concentration of 3.14 %.

The permit holder shall perform at a minimum, *quarterly* monitoring using test procedures outlined in the "North Carolina *Ceriodaphnia* Chronic Effluent Bioassay Procedure," Revised December 2010, or subsequent versions or "North Carolina Phase II Chronic Whole Effluent Toxicity Test Procedure" (Revised- December 2010) or subsequent versions. The tests will be performed *during the months of* March, June, September and December. These months signify the first month of each three-month toxicity testing quarter assigned to the facility. Effluent sampling for this testing must be obtained during representative effluent discharge and 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-December 2010) 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, DWR Form AT-3 (original) is to be sent to the following address:

Attention: North Carolina Division of Water Resources
Water Sciences Section/Aquatic Toxicology Branch
1621 Mail Service Center
Raleigh, NC 27699-1621

Completed Aquatic Toxicity Test Forms shall be filed with the Water 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 Water 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. Assessment of toxicity compliance is based on the toxicity testing quarter, which is the three month time interval that begins on the first day of the month in which toxicity testing is required by this permit and continues until the final day of the third month.

Should any test data from this monitoring requirement or tests performed by the North Carolina Division of Water Resources indicate potential impacts to the receiving stream, this permit may be re-opened and modified to include alternate monitoring requirements or limits.

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.

A. (12.) ACUTE TOXICITY MONITORING - EPISODIC (Outfalls 002B, 002C) [15A NCAC 02B .0400 et seq., 02B .0500 et seq.]

The permittee shall conduct FIVE acute toxicity tests using protocols defined as definitive in E.P.A. Document EPA/600/4–90/027 entitled "Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms." The monitoring shall be performed as a Fathead Minnow (Pimephales promelas) 24 hour static test. Effluent samples for self-monitoring purposes must be obtained below all waste treatment. Sampling and subsequent testing will occur during the first five discrete discharge events after the effective date of this permit. After monitoring of the first five toxicity tests, the permittee will conduct one test annually, with the annual period beginning in January of the next calendar year. The annual test requirement must be performed and reported by June 30. If no discharge occurs by June 30, notification will be made to the Division within 2 weeks after June 30. Toxicity testing will be performed on the next discharge event for the annual test requirement.

The parameter code for this test is TAE6C. All toxicity testing results required as part of this permit condition will be entered on the Effluent Discharge Form (MR-1) for the month in which it was performed, using the appropriate parameter code. Additionally, DWQ Form AT-1 (original) is to be sent to the following address:

Attention: North Carolina Division of Water Resources
Water Sciences Section/Aquatic Toxicology Branch
1621 Mail Service Center
Raleigh, North Carolina 27699-1621

Completed Aquatic Toxicity Test Forms shall be filed with the Water 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 and accurate and include all supporting chemical/physical measurements performed in association with the toxicity tests, as well as all dose/response data. Total residual chlorine of the effluent toxicity sample must be measured and reported if chlorine is employed for disinfection of the waste stream.

Should any test data from either these monitoring requirements or tests performed by the North Carolina Division of Water Resources indicate potential impacts to the receiving stream, this permit may be re-opened and modified to include alternate monitoring requirements or limits.

NOTE: Failure to achieve test conditions as specified in the cited document, such as minimum control organism survival 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.

A. (13.) INSTREAM MONITORING [15A NCAC 02B.0500 ET SEQ.]

The facility shall conduct monthly in-stream monitoring upstream at Alternate Route 221 and downstream approximately 250 meters from the discharge for total arsenic, total selenium, total mercury, total chromium, dissolved lead, dissolved cadmium, dissolved copper, dissolved zinc, total bromide, total hardness (as $CaCO_3$), temperature, turbidity, and total dissolved solids (TDS). The monitoring results shall be reported on the facility's Discharge Monitoring Reports and included with the NPDES permit renewal application.

A. (14.) FISH TISSUE MONITORING NEAR ASH POND DISCHARGE [NCGS 143-215.3 (a)(2)]

The facility shall conduct fish tissue monitoring annually and submit the results with the NPDES permit renewal application. The objective of this monitoring is to evaluate potential uptake of pollutants by fish tissue near the ash pond discharge. The parameters analyzed in fish tissue shall include arsenic, selenium, and mercury. The monitoring shall be conducted in accordance with the sampling plan approved by the Division. The plan should be submitted to the Division within 180 days from the effective date of the permit. Upon approval, the plan becomes an enforceable part of the permit.

Copies of the plan and monitoring results shall be submitted to:

Electronic version (CD and PDF) and hard copy:
DWR Water Science Section
1623 Mail Service Center
Raleigh, NC 27699-1623

Electronic version only (CD and PDF):
WQ Permitting Section – NPDES
1617 Mail Service Center
Raleigh, NC 27699-1617

A. (15.) CHEMICAL DISCHARGES [G.S. 143-215, 143-215.1]

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.

A. (16.) ADDITIONAL CONDITIONS AND DEFINITIONS [G.S. 143-215.3(a)(2) & 143-215.66]

1. EPA methods 200.7 or 200.8 (or the most current versions) shall be used for analyses of all metals except for total mercury (EPA Method 1631E).
2. All effluent samples for all external outfalls shall be taken at the most accessible location after the final treatment but prior to discharge to waters of the U.S. (40 CFR 122.41(j)).
3. The term *low volume waste sources* means wastewater from all sources except those for which specific limitations are otherwise established in this part (40 CFR 423.11 (b)).
4. The term *chemical metal cleaning waste* means any wastewater resulting from cleaning any metal process equipment with chemical compounds, including, but not limited to, boiler tube cleaning (40 CFR 423.11 (c)).
5. 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 (40 CFR 423.11 (d)).
6. For all outfalls where the flow measurement is to be "estimated" the estimate can be done by using calibrated V-notch weir, stop-watch and graduated cylinder, or other method approved by the Division.
7. The term "FGD wet scrubber wastewater" means wastewater resulting from the use of the flue-gas desulfurization wet scrubber.
8. There shall be no discharge of polychlorinated biphenyl compounds.
9. The permittee shall report the presence of cenospheres observed in any samples on the DMRs in the comment section.
10. The applicant is permitted to discharge chemical metal cleaning wastes to the ash pond.
11. Nothing contained in this permit shall be construed as a waiver by the permittee of any right to a hearing it may have pursuant to State or Federal laws and regulations.

A. (17.) STRUCTURAL INTEGRITY INSPECTIONS OF ASH DAMS [15A NCAC 02K.0208]

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

A. (18.) FLOATING MATERIALS [15A NCAC 02B .0400 et seq.]

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

A. (19.) INTAKE SCREEN BACKWASH [G.S. 143-215, 143-215.1]

Continued intake screen backwash discharge is permitted without limitations or monitoring requirements.

A. (20.) BIOCIDE CONDITION [NCGS 143-215.1]

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 Resources. 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.

A. (21.) CHEMICAL METAL CLEANING WASTES [40 CFR 423]

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 Riverbend 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 in the ratio of 100 to 1.
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; ammonium carbonate, (NH)CO; and ammonium hydroxide, NHOH.
   (b) Iron removal step-hydrochloric acid, HCl; and ammonium bifluoride, (NH)BF and proprietary inhibitors.
7. Maximum dilution of wastes before entering ash pond should not be greater than 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. 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.

A. (22.) TOXICITY REOPENER CONDITION [G.S. 143-215.1(b)]

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.

A. (23.) DOMESTIC WASTEWATER TREATMENT PLANT [G.S. 143-215, 143-215.1]

The permittee shall at all times properly operate and maintain the domestic wastewater treatment plant to meet secondary treatment standards.

A. (24.) CWA 316(b) REQUIREMENTS [40 CFR 125.95]

The permittee shall comply with the Cooling Water Intake Structure Rule per 40 CFR 125.95. The permittee shall submit all the materials required by the Rule 3.5 years from the effective date of the permit.

Copies of all applicable materials should be submitted to:

Electronic version (CD and PDF) and hard copy:
DWR Water Science Section
1623 Mail Service Center
Raleigh, NC 27699-1623

Electronic version only (CD and PDF):
WQ Permitting Section – NPDES
1617 Mail Service Center
Raleigh, NC 27699-1617

Pursuit to 40 CFR 125.98 the Director has determined that operating and maintaining the existing Closed-cycle recirculating system meets the requirements for an interim BTA.

Nothing in this permit authorizes take for the purposes of a facility's compliance with the Endangered Species Act.

A. (25.) APPLICABLE STATE LAW (State Enforceable Only) [NCGS 143-215.1(b)]

This facility shall meet the General Statute requirements under NCGS § 130A-309.200 et seq. This permit may be reopened to include new requirements imposed under these Statutes.

A. (26.) ASH POND CLOSURE

The facility shall prepare an Ash Ponds Closure Plan. This Plan shall be submitted to the Division one month prior to the closure of the ash ponds.

A. (27.) TEMPERATURE MIXING ZONE - OUTFALL 005 [G.S. 143-215.3(a)(2)]

a) The temperature mixing zone is defined as the area extending from outfall 005 to approximately 145 meters (476 feet) downstream and 37 meters (121 feet) wide. The discharge shall not result in acute toxicity to aquatic life, prevent free passage of aquatic organisms around the mixing zone, result in offensive conditions, produce undesirable aquatic life or result in a dominance of nuisance species outside of the assigned mixing zone; or endanger the public health or welfare.

b) The temperature standard of 32°C (89.6°F) and the maximum temperature increase above natural temperature of 2.8°C (5.04°F) shall be met at the end of the mixing zone. The natural water temperature shall be the temperature measured at the upstream sampling location. The increase in temperature is defined as the difference in temperature between the upstream and downstream sampling locations.

c) The results of all temperature monitoring shall be reported in the monthly DMRs. When possible, instream monitoring for temperature shall be performed during times the facility is operating at full loading.

d) After 12 months of temperature data are collected the permittee shall submit a report to the Division to verify the Cormix model predictions. The report shall include field verification of assumptions used in the model and a summary of temperature data for effluent, upstream and downstream and shall be submitted to:

Division of Water Resources
WQ Permitting Section - NPDES
1617 Mail Service Center
Raleigh, NC 27699-1617

e) Once during the permit term the permittee shall perform an assessment to verify that the mixing zone does not prevent the passage of aquatic organisms around the mixing zone. A study plan shall be submitted to the Division prior to commencement of the study to the following address:

Division of Water Resources
WQ Permitting Section – NPDES
1617 Mail Service Center
Raleigh, NC 27699-1617

Division of Water Resources
Water Sciences Section
1623 Mail Service Center
Raleigh, NC 27699-1623

f) This permit may be reopened to implement alternative temperature limits or requirements based on the results of the data collected.

A. (28.) ELECTRONIC REPORTING OF DISCHARGE MONITORING REPORTS [G.S. 143-215.1(b)]

Federal regulations require electronic submittal of all discharge monitoring reports (DMRs) and program reports. The final NPDES Electronic Reporting Rule was adopted and became effective on December 21, 2015.

NOTE: This special condition supplements or supersedes the following sections within Part II of this permit (*Standard Conditions for NPDES Permits*):

- Section B. (11.) Signatory Requirements
- Section D. (2.) Reporting
- Section D. (6.) Records Retention
- Section E. (5.) Monitoring Reports

1. <u>Reporting Requirements [Supersedes Section D. (2.) and Section E. (5.) (a)]</u>

The permittee shall report discharge monitoring data electronically using the NC DWR's Electronic Discharge Monitoring Report (eDMR) internet application.

Monitoring results obtained during the previous month(s) shall be summarized for each month and submitted electronically using eDMR. The eDMR system allows permitted facilities to enter monitoring data and submit DMRs electronically using the internet. Until such time that the state's eDMR application is compliant with EPA's Cross-Media Electronic Reporting Regulation (CROMERR), permittees will be required to submit all discharge monitoring data to the state electronically using eDMR and will be required to complete the eDMR submission by printing, signing, and submitting one signed original and a copy of the computer printed eDMR to the following address:

NC DENR / Division of Water Resources / Water Quality Permitting Section
ATTENTION: Central Files
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

If a permittee is unable to use the eDMR system due to a demonstrated hardship or due to the facility being physically located in an area where less than 10 percent of the households have broadband access, then a temporary waiver from the NPDES electronic reporting requirements may be granted and discharge

monitoring data may be submitted on paper DMR forms (MR 1, 1.1, 2, 3) or alternative forms approved by the Director. Duplicate signed copies shall be submitted to the mailing address above. See "How to Request a Waiver from Electronic Reporting" section below.

Regardless of the submission method, 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.

Starting on **December 21, 2020**, the permittee must electronically report the following compliance monitoring data and reports, when applicable:

- Sewer Overflow/Bypass Event Reports;
- Pretreatment Program Annual Reports; and
- Clean Water Act (CWA) Section 316(b) Annual Reports.

The permittee may seek an electronic reporting waiver from the Division (see "How to Request a Waiver from Electronic Reporting" section below).

2. Electronic Submissions

In accordance with 40 CFR 122.41(l)(9), the permittee must identify the initial recipient at the time of each electronic submission. The permittee should use the EPA's website resources to identify the initial recipient for the electronic submission.

Initial recipient of electronic NPDES information from NPDES-regulated facilities means the entity (EPA or the state authorized by EPA to implement the NPDES program) that is the designated entity for receiving electronic NPDES data [see 40 CFR 127.2(b)].

EPA plans to establish a website that will also link to the appropriate electronic reporting tool for each type of electronic submission and for each state. Instructions on how to access and use the appropriate electronic reporting tool will be available as well. Information on EPA's NPDES Electronic Reporting Rule is found at: http://www2.epa.gov/compliance/final-national-pollutant-discharge-elimination-system-npdes-electronic-reporting-rule.

Electronic submissions must start by the dates listed in the "Reporting Requirements" section above.

3. How to Request a Waiver from Electronic Reporting

The permittee may seek a temporary electronic reporting waiver from the Division. To obtain an electronic reporting waiver, a permittee must first submit an electronic reporting waiver request to the Division. Requests for temporary electronic reporting waivers must be submitted in writing to the Division for written approval at least sixty (60) days prior to the date the facility would be required under this permit to begin submitting monitoring data and reports. The duration of a temporary waiver shall not exceed 5 years and shall thereupon expire. At such time, monitoring data and reports shall be submitted electronically to the Division unless the permittee re-applies for and is granted a new temporary electronic reporting waiver by the Division. Approved electronic reporting waivers are not transferrable. Only permittees with an approved reporting waiver request may submit monitoring data and reports on paper to the Division for the period that the approved reporting waiver request is effective.

Information on eDMR and the application for a temporary electronic reporting waiver are found on the following web page:

http://deq.nc.gov/about/divisions/water-resources/edmr

4. **Signatory Requirements [Supplements Section B. (11.) (b) and Supersedes Section B. (11.) (d)]**

All eDMRs submitted to the permit issuing authority shall be signed by a person described in Part II, Section B. (11.)(a) or by a duly authorized representative of that person as described in Part II, Section B. (11.)(b). A person, and not a position, must be delegated signatory authority for eDMR reporting purposes.

For eDMR submissions, the person signing and submitting the DMR must obtain an eDMR user account and login credentials to access the eDMR system. For more information on North Carolina's eDMR system, registering for eDMR and obtaining an eDMR user account, please visit the following web page:

http://deq.nc.gov/about/divisions/water-resources/edmr

Certification. Any person submitting an electronic DMR using the state's eDMR system shall make the following certification [40 CFR 122.22]. NO OTHER STATEMENTS OF CERTIFICATION WILL BE ACCEPTED:

"*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.*"

5. **Records Retention [Supplements Section D. (6.)]**

The permittee shall retain records of all Discharge Monitoring Reports, including eDMR submissions. These records or copies shall be maintained for a period of at least 3 years from the date of the report. This period may be extended by request of the Director at any time [40 CFR 122.41].

A. (29.) NOTIFICATION OF START-UP – OUTFALL 005 [G.S. 143-215.1(a)]

The permittee shall notify the Asheville Regional Office and the NPDES Permitting Unit in writing, seven (7) calendar days prior to the commencement of the discharge from the new waste water treatment system (Outfall 005). In addition, the permittee shall notify if the decanting and/or dewatering of the ash basin will be routed to the new treatment system. Notification shall be sent to the following addresses:

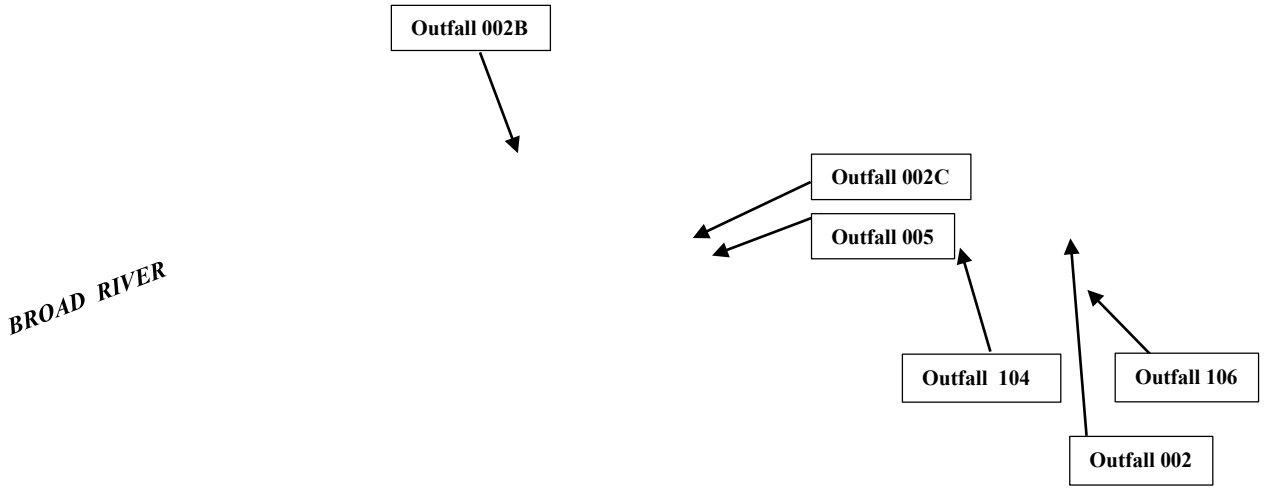
Division of Water Resources
WQ Permitting Section - NPDES
1617 Mail Service Center
Raleigh, NC 27699-1617

Division of Water Resources
Asheville Water Quality Regional Operations Section
2090 U.S. 70 Highway
Swannanoa, NC 28778-8211

A. (30) COMPLIANCE BOUNDARY [15A NCAC 02L.0107]

The compliance boundary for the disposal system shall be specified in accordance with 15A NCAC 02L .0107(a) or (b) dependent upon the date permitted. An exceedance of groundwater standards at or beyond the compliance boundary is subject to remediation action according to 15A NCAC 02L .0106(c), (d), or (e) as well as enforcement

actions in accordance with North Carolina General Statute 143-215.6A through 143-215.6C. The compliance boundary map for this facility is incorporated herein and attached hereto as Attachment A.



NC0005088 Rogers Energy Complex – Rutherford County

Receiving Stream: Broad River	Outfall:	Latitude:	Longitude:
Classification: WS-IV	002	35° 13’ 06”	81° 44’ 54”
HUC: 03050105	002B	35° 13’ 16”	81° 45’ 31”
Sub-basin: 03-08-02	002C	35° 13’ 09”	81° 45’ 22”
	005	35° 13’ 07”	81° 45’ 19”
	104	35° 13’ 3.5”	81° 45’ 9.3”
	106	35° 13’ 6.3”	81° 44’ 53.7”