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

Duke Energy Carolinas, LLC

is hereby authorized to discharge wastewater from a facility located at the

Belews Creek Steam Station
3195 Pine Hall Road (NCSR 1908)
Belews Creek
Stokes County

to receiving waters designated as the West Belews Creek/Belews Lake (outfall 001) and the Dan River (outfall 003) in the Roanoke River Basin

in accordance with effluent limitations, monitoring requirements, and other applicable 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 (3 years from the effective date of the permit)

Signed this day

DRAFT

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S. Jay Zimmerman P.G., 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 discharge:

- Outfall 001: once through cooling water consisting of intake screen backwash, recirculating cooling water, station equipment cooling water and once-through cooling water. This outfall discharges to Belews Lake.
- Outfall 003: ash basin discharge consisting of waste streams from the power house and yard holding sumps, ash sluice lines, chemical holding pond, coal yard sumps, stormwater, treated domestic wastewater, remediated groundwater, coal pile collection basins (collecting contact stormwater from coal piles), emergency release of anhydrous ammonia, release of ammonia during quarterly testing, seepage from coal ash pond, emergency overflows from the existing effluent channels, emergency overflow from the retention basin, and treated FGD wastewater from internal outfall 002. This outfall discharges to Dan River.
- Internal outfall 002: FGD wastewater (discharging to ash pond)
- Outfall 003A. Upon completion of construction, discharge from the new lined retention basin. Basin will accept wastes from holding basin, various sumps, coal pile runoff, stormwater runoff, cooling tower blowdown, FGD wastewater, and various low volume wastes such as boiler blowdown, oily waste treatment, wastes/backwash from the water treatment processes, plant area wash down water, cooling tower blowdown, equipment heat exchanger water, remediated groundwater, emergency overflow (rain in excess of designed storm event), coal pile collection basins (collecting contact stormwater from coal piles), emergency release of anhydrous ammonia, release of ammonia during quarterly testing, and treated domestic wastewater. This outfall discharges to Dan River via the Outfall 003. <u>Upon completion of construction all waste streams previously discharged to ash basin, will be re-routed to the new retention basin. During transition period, some commingling of wastewater from ash pond and retention basin can occur.</u>
- Outfall 005. This is a former stormwater outfall SW002, consists of once through non-contact chiller water and stormwater. This outfall discharges to Belews Lake.
- Seep Outfalls 106 (S-12 commingles with S-6), 107, 108, 109, 114 (S-13 commingles with S-14) - 5 potentially contaminated seeps. These seeps discharge to Belews Lake (S-7 discharges to Charlie's Pond, which is a tributary to Belews Lake).
- Seep Outfalls 102, 115 (S-10 and S-11 commingles with S-15, sampling shall be conducted below the point where all 3 channels commingle) - 2 potentially contaminated seeps. These seeps discharge to Dan River.

From a facility located at Belews Creek Station, 3195 Pine Hall Road (NCSR 1908), Belews Creek in Stokes County, and

2. Discharge wastewater from said treatment works at the location specified on the attached map into West Belews Creek/Belews Lake (including Charlie's Pond), and the Dan River, which are classified C and WS-IV waters, respectively, in the Roanoke River Basin.

Part I

A. (1.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 001)[4]

[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 once-through cooling water and intake screen backwash from outfall 001. Such discharges shall be limited and monitored[3] by the Permittee as specified below:

PARAMETER	LIMITS		MONITORING REQUIREMENTS		
	Daily Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[1]
Flow			Continuous	Pump Logs	Effluent
Temperature °C			Daily	Recorder/Grab	Upstream
Temperature °C [2]			Daily	Recorder/Grab	Downstream 1
Temperature °C [2]	32°C		Daily	Recorder/Grab	Downstream 2
Temperature °C			Daily	Recorder/Grab	Effluent

Notes:

1. Sampling locations: Upstream - Upstream at Southern Railroad crossing of Belews Creek OR East Belews Creek (site 405 or site 419), Downstream – Downstream at the discharge from the Dam, approximately 5.3 miles from the outfall (Downstream 2), and approximately 0.5 miles downstream of Outfall 001 (Downstream 1). Upstream and downstream temperature samples are to be measured one foot below the surface.
2. **In no case shall the ambient temperature exceed 32°C as a result of Belews Creek Steam Station operations.** The ambient temperature shall be defined as the daily average downstream (Downstream 2) discharge water temperature. In cases where the Permittee experiences equipment problems and is unable to obtain daily temperatures from the existing temperature monitoring system, monitoring must be reestablished within five working days.
3. Please See Special Condition A. (29.).
4. The facility shall submit EPA Form 2C for this Outfall as soon as practicable, but no later than 180 days from the effective date of this permit.

Chlorination of the once through condenser cooling water and/or auxiliary cooling water, discharged through outfall 001, is not allowed under this permit. Should Duke Energy wish to chlorinate its condenser cooling water, a permit modification must be requested and received prior to commencing chlorination.

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

A. (2.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Internal Outfall 002)

[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 **Internal Outfall 002** (treated FGD wet scrubber wastewater to ash settling basin). Such discharges shall be limited and monitored[1] by the Permittee as specified below:

PARAMETER	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow, MGD			Weekly	Pump Logs or similar readings	Effluent
Total Arsenic	8.0 µg/L[2]	11.0 µg/L[2]	Quarterly	Grab	Effluent
Total Mercury[3]	356.0 ng/L[2]	788.0 ng/L[2]	Quarterly	Grab	Effluent
Total Selenium	12.0 µg/L[2]	23.0 µg/L[2]	Quarterly	Grab	Effluent
Nitrate/nitrite as N	4.4 mg/L[2]	17.0 mg/L[2]	Quarterly	Grab	Effluent
Oil and Grease	15.0 mg/L	20.0 mg/L	Quarterly	Grab	Effluent
Total Suspended Solids	30.0 mg/L	50.0 mg/L	Quarterly	Grab	Effluent

Notes:

1. Please See Special Condition A. (29.).
2. The TBEL limits shall become effective on November 1, 2019. This time period is provided in order for the facility to budget, design, and construct the treatment system.
3. The facility shall use EPA method 1631E.

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.

A. (3.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 003 – normal operations/decanting)

[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 003 Ash settling basin (**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[5] by the Permittee as specified below:

PARAMETER	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow, MGD			Weekly	Pump logs or estimate	Effluent
Oil and Grease[1]	15.0 mg/L	20.0 mg/L	Monthly	Grab	Effluent
Total Suspended Solids[1,7]	30.0 mg/L	50.0 mg/L	Monthly	Grab	Effluent
BOD, 5-day, 20° C[11]	30.0 mg/L	45.0 mg/L	Weekly	Grab	Effluent
Fecal Coliform (geo. mean)[11]	200/100 mL	400/100 mL	Weekly	Grab	Effluent
Total Arsenic, µg/L			Monthly	Grab	Effluent
Chlorides, mg/L			Monthly	Grab	Effluent
Total Iron	1.0 mg/L	1.0 mg/L	Monthly	Grab	Effluent
Total Copper	29.8 µg/L	34.2 µg/L	Monthly	Grab	Effluent
Total Aluminum	6.5 mg/L	6.5 mg/L	Monthly	Grab	Effluent
Total Lead, µg/L			Monthly	Grab	Effluent
Total Cadmium, µg/L			Monthly	Grab	Effluent
Total Selenium, µg/L			Monthly	Grab	Effluent
Total Zinc, µg/L			Monthly	Grab	Effluent
Total Chromium, µg/L			Monthly	Grab	Effluent
Total Dissolved Solids, mg/L			Monthly	Grab	Effluent
Total Silver, µg/L			Monthly	Grab	Effluent
Fluoride, mg/L			Monthly	Grab	Effluent
Total Phosphorus, mg/L			Monthly	Grab	Effluent
Total Nitrogen (NO_2 + NO_3 + TKN), mg/L			Monthly	Grab	Effluent
Chronic Toxicity[2]			Monthly	Grab	Effluent
pH[3,8]			2/Month	Grab	Effluent
Bromides, mg/L			Monthly	Grab	Effluent
Total Lead	11.1 µg/L	246.7 µg/L	Monthly	Grab	Effluent
Total Thallium	0.91 µg/L	0.91 µg/L	Monthly	Grab	Effluent
Total Mercury[4], ng/L			Monthly	Grab	Effluent
Turbidity[6], NTU			Weekly	Grab	Effluent
Total Hardness, mg/L			Monthly	Grab	Effluent
Ammonia[9]	1.0 mg/L	5.0 mg/L	Variable	Grab	Effluent

Notes:

1. Monitoring for TSS, oil and grease and all toxicants shall be performed concurrently with the Chronic Toxicity test.
2. Whole Effluent Toxicity shall be monitored by chronic toxicity (Ceriodaphnia) P/F at 26.5%. See Condition A. (17.) for details.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 2/month upstream of the confluence of the discharge and the receiving waters by grab sample.
4. The facility shall employ method 1631E.
5. Please See Special Condition A. (29.).
6. The net turbidity shall not exceed 50 NTU using a grab sample and measured by the difference between the effluent turbidity and the background turbidity. The sample for the background turbidity shall be taken at point in the receiving waterbody upstream of the discharge location,

and the background turbidity and the effluent turbidity samples shall be taken within the same 24 hour period.
NTU - Nephelometric Turbidity Unit.

7. The facility shall continuously monitor TSS concentration when the decanting process commences and the decanting pump shall be shutoff automatically when the 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. The continuous TSS monitoring only required when the pumps are employed for decanting.
8. The facility shall continuously monitor pH when the decanting process commences and the decanting pump shall be shutoff 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. Ammonia limit and monitoring is only applicable in the event of the emergency release of anhydrous ammonia. The sampling should be commenced as soon as possible after the release considering personnel safety and every hour thereafter until the sampling indicate no discharge of ammonia.
10. The limit applies only when the metal cleaning waste is being discharged to the basin.
11. The limit and monitoring apply only when the domestic wastewater is being discharged to the basin.

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

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

The level of water in the ash pond should not be lowered more than 1 ft/week, unless approved by the DEQ Dam Safety Program. The facility shall use a floating pump suction pipe with free water skimmed from the basin surface using an adjustable weir.

The limits and conditions in Section A. (4.) of the permit apply when water in the ash settling basin is lowered below the three feet trigger mark.

By May 1, 2017 there shall be no discharge of pollutants in fly ash transport water. This requirement only applies to fly ash transport water generated after May 1, 2017.

By May 31, 2021 there shall be no discharge of pollutants in bottom ash transport water. This requirement only applies to bottom ash transport water generated after May 31, 2021.

The facility shall notify DWR Complex NPDES Permitting Unit and DWR Winston-Salem Regional Office seven calendar days prior to the commencement of the decanting.

When the facility commences the ash pond/ponds decommissioning process and pumping to decant is employed, the facility shall treat the wastewater discharged from the ash pond/ponds by the physical-chemical treatment facilities.

A. (4.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 003 – dewatering)

[15A NCAC 02B .0400 et seq., 02B .0500 et seq.]

During the period beginning on the commencement of dewatering and **lasting until expiration of the permit**, the Permittee is authorized to discharge from outfall 003 Ash settling basin (**Dewatering – removing the interstitial water**). Such discharges shall be limited and monitored[5] by the Permittee as specified below:

PARAMETER	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow		2.0 MGD[12]	Daily	Pump logs or estimate	Effluent
Oil and Grease[1]	15.0 mg/L	20.0 mg/L	Weekly	Grab	Effluent
Total Suspended Solids[1,7]	30.0 mg/L	50.0 mg/L	Weekly	Grab	Effluent
BOD, 5-day, 20° C[11]	30.0 mg/L	45.0 mg/L	Weekly	Grab	Effluent
Fecal Coliform (geo. mean)[11]	200/100 mL	400/100 mL	Weekly	Grab	Effluent
Total Arsenic, µg/L			Weekly	Grab	Effluent
Chlorides, mg/L			Weekly	Grab	Effluent
Total Iron, mg/L[10]	1.0 mg/L	1.0 mg/L	Weekly	Grab	Effluent
Total Copper	211.3 µg/L	231.4 µg/L	Weekly	Grab	Effluent
Total Selenium	134.0 µg/L	1,237.4 µg/L	Weekly	Grab	Effluent
Total Molybdenum	4,289.0 µg/L	4,289.0 µg/L	Weekly	Grab	Effluent
Total Aluminum	6.5 mg/L	6.5 mg/L	Weekly	Grab	Effluent
Fluoride, mg/L			Weekly	Grab	Effluent
Total Chromium, µg/L			Weekly	Grab	Effluent
Total Cadmium, µg/L			Weekly	Grab	Effluent
Total Zinc, µg/L			Weekly	Grab	Effluent
Total Dissolved Solids, mg/L			Weekly	Grab	Effluent
Total Phosphorus, mg/L			Monthly	Grab	Effluent
Total Nitrogen (NO_2 + NO_3 + TKN), mg/L			Monthly	Grab	Effluent
Chronic Toxicity[2]			Monthly	Grab	Effluent
pH[3,8]			Weekly	Grab	Effluent
Bromides, mg/L			Weekly	Grab	Effluent
Total Lead	78.9 µg/L	1,668.0 µg/L	Weekly	Grab	Effluent
Total Thallium	6.43 µg/L	6.43 µg/L	Weekly	Grab	Effluent
Total Mercury[4], ng/L			Weekly	Grab	Effluent
Turbidity[6], NTU			Weekly	Grab	Effluent
Total Hardness, mg/L			Weekly	Grab	Effluent
Ammonia[9]	1.0 mg/L	5.0 mg/L	Variable	Grab	Effluent

Notes:

1. Monitoring for TSS, oil and grease and all toxicants shall be performed concurrently with the Chronic Toxicity test.
2. Whole Effluent Toxicity shall be monitored by chronic toxicity (Ceriodaphnia) P/F at 3.7%. See Condition A. (17.) for details.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 2/month upstream of the confluence of the discharge and the receiving waters by grab sample.
4. The facility shall employ method 1631E.
5. Please See Special Condition A. (29.).
6. The net turbidity shall not exceed 50 NTU using a grab sample and measured by the difference between the effluent turbidity and the background turbidity. The sample for the background turbidity shall be taken at point in the receiving waterbody upstream of the discharge location,

and the background turbidity and the effluent turbidity samples shall be taken within the same 24 hour period.
NTU - Nephelometric Turbidity Unit.

7. The facility shall continuously monitor TSS concentration when the dewatering process commences and the dewatering pump shall be shutoff automatically when the 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.
8. The facility shall continuously monitor pH when the dewatering process commences and the dewatering pump shall be shutoff 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. Ammonia limit and monitoring is only applicable in the event of the emergency release of anhydrous ammonia. The sampling should be commenced as soon as possible after the release considering personnel safety and every hour thereafter until the sampling indicate no discharge of ammonia.
10. The limit applies only when the metal cleaning waste is being discharged to the basin.
11. The limit and monitoring apply only when the domestic wastewater is being discharged to the basin.
12. The limit is only applicable to interstitial water treated by an additional physical/chemical treatment system.

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

The level of water in the ash pond should not be lowered more than 1 ft/week, unless approved by the DEQ Dam Safety Program. The facility shall use a floating pump suction pipe with free water skimmed from the basin surface using an adjustable weir.

By May 1, 2017 there shall be no discharge of pollutants in fly ash transport water. This requirement only applies to fly ash transport water generated after May 1, 2017.

By May 31, 2021 there shall be no discharge of pollutants in bottom ash transport water. This requirement only applies to bottom ash transport water generated after May 31, 2021.

The facility shall notify DWR Complex NPDES Permitting Unit and DWR Winston-Salem Regional Office seven calendar days prior to the commencement of the decanting.

When the facility commences the dewatering process, the facility shall treat the wastewater discharged from the ash pond/ponds by the physical-chemical treatment facilities.

A. (5.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 003A)

[15A NCAC 02B .0400 et seq., 02B .0500 et seq.]

During the period beginning upon the commencement of operations of the new Retention Basin and lasting until expiration, the Permittee is authorized to discharge from Internal Outfall 003A (new retention basin). Such discharges shall be limited and monitored[2] by the Permittee as specified below:

PARAMETER	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow, MGD			Weekly	Instantaneous	Effluent
Oil and Grease	15.0 mg/L	20.0 mg/L	Quarterly	Grab	Effluent
Total Suspended Solids	30.0 mg/L	50.0 mg/L	Quarterly	Grab	Effluent
BOD, 5-day, 20° C[7]	30.0 mg/L	45.0 mg/L	Weekly	Grab	Effluent
Fecal Coliform (geo. mean)[7]	200/100 mL	400/100 mL	Weekly	Grab	Effluent
pH[3]			Weekly	Grab	Effluent
Total Arsenic, µg/L			Quarterly	Grab	Effluent
Total Mercury[1], ng/L			Quarterly	Grab	Effluent
Total Selenium, µg/L			Quarterly	Grab	Effluent
Nitrate/nitrite as N, mg/L			Quarterly	Grab	Effluent
Chloride, mg/L			Quarterly	Grab	Effluent
Total Nickel, µg/L			Quarterly	Grab	Effluent
Sulfate, mg/L			Quarterly	Grab	Effluent
Fluoride, µg/L			Quarterly	Grab	Effluent
Total Barium, mg/L			Quarterly	Grab	Effluent
Total Chromium, µg/L			Quarterly	Grab	Effluent
Total Hardness, mg/L			Quarterly	Grab	Effluent
Chronic Toxicity[4]			Quarterly	Grab	Effluent
Ammonia[5]	1.0 mg/L	5.0 mg/L	Daily	Grab	Effluent
Total Iron[6]	1.0 mg/L	1.0 mg/L	Quarterly	Grab	Effluent
Total Copper[6]	1.0 mg/L	1.0 mg/L	Quarterly	Grab	Effluent

Notes:

1. The facility shall use EPA method 1631E.
2. Please See Special Condition A. (29.).
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units.
4. Whole Effluent Toxicity shall be monitored by chronic toxicity (Ceriodaphnia) P/F at 10.9%. See Condition A. (17.) for details.
5. Ammonia limit and monitoring is only applicable in the event of the emergency release of anhydrous ammonia.
6. The limit applies when the metal cleaning waste is being discharged to the basin.
7. The limit and monitoring apply only when the domestic wastewater is being discharged to the basin.
8. The facility shall submit EPA Form 2C for this Outfall within 2 years of commencement of the discharge.

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

A. (6.) 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 – Seep Discharge. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

PARAMETER	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency[2]	Sample Type	Sample Location
Flow, MGD			Monthly/Quarterly	Estimate	Effluent
pH[3]			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, mg/L			Monthly/Quarterly	Grab	Effluent
Total Mercury[4], ng/L			Monthly/Quarterly	Grab	Effluent
Total Barium, mg/L			Monthly/Quarterly	Grab	Effluent
Total Zinc	126.7 µg/L	125.7 µg/L	Monthly/Quarterly	Grab	Effluent
Total Arsenic	10.0 µg/L	340.0 µg/L	Monthly/Quarterly	Grab	Effluent
Total Boron, µg/L			Monthly/Quarterly	Grab	Effluent
Total Cadmium, µg/L			Monthly/Quarterly	Grab	Effluent
Total Chromium, µg/L			Monthly/Quarterly	Grab	Effluent
Total Copper	7.88 µg/L	10.47 µg/L	Monthly/Quarterly	Grab	Effluent
Total Thallium	0.47 µg/L	0.47 µg/L	Monthly/Quarterly	Grab	Effluent
Total Lead, µg/L			Monthly/Quarterly	Grab	Effluent
Total Nickel	37.2 µg/L	335.2 µg/L	Monthly/Quarterly	Grab	Effluent
Total Selenium	5.0 µg/L	56.0 µg/L	Monthly/Quarterly	Grab	Effluent
Nitrate/nitrite as N, mg/L			Monthly/Quarterly	Grab	Effluent
Sulfates, mg/L			Monthly/Quarterly	Grab	Effluent
Chlorides	230.0 mg/L	230.0 mg/L	Monthly/Quarterly	Grab	Effluent
TDS, mg/L			Monthly/Quarterly	Grab	Effluent
Total Hardness, mg/L			Monthly/Quarterly	Grab	Effluent
Temperature, ^{0}C			Monthly/Quarterly	Grab	Effluent
Conductivity, µmho/cm			Monthly/Quarterly	Grab	Effluent

Notes:

1. Please See Special Condition A. (29.).
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 pH shall not be less than 6.0 standard units nor greater than 9.0 standard units.
4. The facility shall use EPA method 1631E.

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 (15A NCAC 02B .0506(a)(1)(E)).

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

A. (7.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 107)

[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 107 – Seep Discharge. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

PARAMETER	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency[2]	Sample Type	Sample Location
Flow, MGD			Monthly/Quarterly	Estimate	Effluent
pH[3]			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, mg/L			Monthly/Quarterly	Grab	Effluent
Total Mercury[4], ng/L			Monthly/Quarterly	Grab	Effluent
Total Barium, mg/L			Monthly/Quarterly	Grab	Effluent
Total Zinc	126.7 µg/L	125.7 µg/L	Monthly/Quarterly	Grab	Effluent
Total Arsenic	10.0 µg/L	340.0 µg/L	Monthly/Quarterly	Grab	Effluent
Total Boron, µg/L			Monthly/Quarterly	Grab	Effluent
Total Cadmium, µg/L			Monthly/Quarterly	Grab	Effluent
Total Chromium, µg/L			Monthly/Quarterly	Grab	Effluent
Total Copper	7.88 µg/L	10.47 µg/L	Monthly/Quarterly	Grab	Effluent
Total Thallium	0.47 µg/L	0.47 µg/L	Monthly/Quarterly	Grab	Effluent
Total Lead, µg/L			Monthly/Quarterly	Grab	Effluent
Total Nickel	37.2 µg/L	335.2 µg/L	Monthly/Quarterly	Grab	Effluent
Total Selenium	5.0 µg/L	56.0 µg/L	Monthly/Quarterly	Grab	Effluent
Nitrate/nitrite as N, mg/L			Monthly/Quarterly	Grab	Effluent
Sulfates, mg/L			Monthly/Quarterly	Grab	Effluent
Chlorides	230.0 mg/L	230.0 mg/L	Monthly/Quarterly	Grab	Effluent
TDS, mg/L			Monthly/Quarterly	Grab	Effluent
Total Hardness, mg/L			Monthly/Quarterly	Grab	Effluent
Temperature, ^{0}C			Monthly/Quarterly	Grab	Effluent
Conductivity, µmho/cm			Monthly/Quarterly	Grab	Effluent

Notes:

1. Please See Special Condition A. (29.).
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 pH shall not be less than 6.0 standard units nor greater than 9.0 standard units.
4. The facility shall use EPA method 1631E.

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 (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 108)

[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 108 – Seep Discharge. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

PARAMETER	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency[2]	Sample Type	Sample Location
Flow, MGD			Monthly/Quarterly	Estimate	Effluent
pH[3]			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, mg/L			Monthly/Quarterly	Grab	Effluent
Total Mercury[4], ng/L			Monthly/Quarterly	Grab	Effluent
Total Barium, mg/L			Monthly/Quarterly	Grab	Effluent
Total Zinc	126.7 µg/L	125.7 µg/L	Monthly/Quarterly	Grab	Effluent
Total Arsenic	10.0 µg/L	340.0 µg/L	Monthly/Quarterly	Grab	Effluent
Total Boron, µg/L			Monthly/Quarterly	Grab	Effluent
Total Cadmium, µg/L			Monthly/Quarterly	Grab	Effluent
Total Chromium, µg/L			Monthly/Quarterly	Grab	Effluent
Total Copper	7.88 µg/L	10.47 µg/L	Monthly/Quarterly	Grab	Effluent
Total Thallium	0.47 µg/L	0.47 µg/L	Monthly/Quarterly	Grab	Effluent
Total Lead, µg/L			Monthly/Quarterly	Grab	Effluent
Total Nickel	37.2 µg/L	335.2 µg/L	Monthly/Quarterly	Grab	Effluent
Total Selenium	5.0 µg/L	56.0 µg/L	Monthly/Quarterly	Grab	Effluent
Nitrate/nitrite as N, mg/L			Monthly/Quarterly	Grab	Effluent
Sulfates, mg/L			Monthly/Quarterly	Grab	Effluent
Chlorides	230.0 mg/L	230.0 mg/L	Monthly/Quarterly	Grab	Effluent
TDS, mg/L			Monthly/Quarterly	Grab	Effluent
Total Hardness, mg/L			Monthly/Quarterly	Grab	Effluent
Temperature, ^{0}C			Monthly/Quarterly	Grab	Effluent
Conductivity, µmho/cm			Monthly/Quarterly	Grab	Effluent

Notes:

1. Please See Special Condition A. (29.).
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 pH shall not be less than 6.0 standard units nor greater than 9.0 standard units.
4. The facility shall use EPA method 1631E.

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 (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.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 109)

[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 109 – Seep Discharge. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

PARAMETER	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency[2]	Sample Type	Sample Location
Flow, MGD			Monthly/Quarterly	Estimate	Effluent
pH[3]			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, mg/L			Monthly/Quarterly	Grab	Effluent
Total Mercury[4], ng/L			Monthly/Quarterly	Grab	Effluent
Total Barium, mg/L			Monthly/Quarterly	Grab	Effluent
Total Zinc	126.7 µg/L	125.7 µg/L	Monthly/Quarterly	Grab	Effluent
Total Arsenic	10.0 µg/L	340.0 µg/L	Monthly/Quarterly	Grab	Effluent
Total Boron, µg/L			Monthly/Quarterly	Grab	Effluent
Total Cadmium, µg/L			Monthly/Quarterly	Grab	Effluent
Total Chromium, µg/L			Monthly/Quarterly	Grab	Effluent
Total Copper	7.88 µg/L	10.47 µg/L	Monthly/Quarterly	Grab	Effluent
Total Thallium	0.47 µg/L	0.47 µg/L	Monthly/Quarterly	Grab	Effluent
Total Lead, µg/L			Monthly/Quarterly	Grab	Effluent
Total Nickel	37.2 µg/L	335.2 µg/L	Monthly/Quarterly	Grab	Effluent
Total Selenium	5.0 µg/L	56.0 µg/L	Monthly/Quarterly	Grab	Effluent
Nitrate/nitrite as N, mg/L			Monthly/Quarterly	Grab	Effluent
Sulfates, mg/L			Monthly/Quarterly	Grab	Effluent
Chlorides	230.0 mg/L	230.0 mg/L	Monthly/Quarterly	Grab	Effluent
TDS, mg/L			Monthly/Quarterly	Grab	Effluent
Total Hardness, mg/L			Monthly/Quarterly	Grab	Effluent
Temperature, ^{0}C			Monthly/Quarterly	Grab	Effluent
Conductivity, µmho/cm			Monthly/Quarterly	Grab	Effluent

Notes:

1. Please See Special Condition A. (29.).
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 pH shall not be less than 6.0 standard units nor greater than 9.0 standard units.
4. The facility shall use EPA method 1631E.

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 (15A NCAC 02B .0506(a)(1)(E)).

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

A. (10.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 114)

[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 114 – Seep Discharge. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

PARAMETER	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency[2]	Sample Type	Sample Location
Flow, MGD			Monthly/Quarterly	Estimate	Effluent
pH[3]			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, mg/L			Monthly/Quarterly	Grab	Effluent
Total Mercury[4], ng/L			Monthly/Quarterly	Grab	Effluent
Total Barium, mg/L			Monthly/Quarterly	Grab	Effluent
Total Zinc	126.7 µg/L	125.7 µg/L	Monthly/Quarterly	Grab	Effluent
Total Arsenic	10.0 µg/L	340.0 µg/L	Monthly/Quarterly	Grab	Effluent
Total Boron, µg/L			Monthly/Quarterly	Grab	Effluent
Total Cadmium, µg/L			Monthly/Quarterly	Grab	Effluent
Total Chromium, µg/L			Monthly/Quarterly	Grab	Effluent
Total Copper	7.88 µg/L	10.47 µg/L	Monthly/Quarterly	Grab	Effluent
Total Thallium	0.47 µg/L	0.47 µg/L	Monthly/Quarterly	Grab	Effluent
Total Lead, µg/L			Monthly/Quarterly	Grab	Effluent
Total Nickel	37.2 µg/L	335.2 µg/L	Monthly/Quarterly	Grab	Effluent
Total Selenium	5.0 µg/L	56.0 µg/L	Monthly/Quarterly	Grab	Effluent
Nitrate/nitrite as N, mg/L			Monthly/Quarterly	Grab	Effluent
Sulfates, mg/L			Monthly/Quarterly	Grab	Effluent
Chlorides	230.0 mg/L	230.0 mg/L	Monthly/Quarterly	Grab	Effluent
TDS, mg/L			Monthly/Quarterly	Grab	Effluent
Total Hardness, mg/L			Monthly/Quarterly	Grab	Effluent
Temperature, ^{0}C			Monthly/Quarterly	Grab	Effluent
Conductivity, µmho/cm			Monthly/Quarterly	Grab	Effluent

Notes:

1. Please See Special Condition A. (29.).
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 pH shall not be less than 6.0 standard units nor greater than 9.0 standard units.
4. The facility shall use EPA method 1631E.

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 (15A NCAC 02B .0506(a)(1)(E)).

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

A. (11.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 102)

[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 102 – Seep Discharge. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

PARAMETER	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency[2]	Sample Type	Sample Location
Flow, MGD			Monthly/Quarterly	Estimate	Effluent
pH[3]			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, mg/L			Monthly/Quarterly	Grab	Effluent
Total Mercury[4], ng/L			Monthly/Quarterly	Grab	Effluent
Total Barium, mg/L			Monthly/Quarterly	Grab	Effluent
Total Zinc, µg/L			Monthly/Quarterly	Grab	Effluent
Total Arsenic, µg/L			Monthly/Quarterly	Grab	Effluent
Total Boron, 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
Temperature, ^{0}C			Monthly/Quarterly	Grab	Effluent
Conductivity, µmho/cm			Monthly/Quarterly	Grab	Effluent

Notes:

1.
2. Please See Special Condition A. (29.).
3. 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.
4. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units.
5. The facility shall use EPA method 1631E.

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 (15A NCAC 02B .0506(a)(1)(E)).

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

A. (12.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 115)

[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 115 – Seep Discharge. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

PARAMETER	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency[2]	Sample Type	Sample Location
Flow, MGD			Monthly/Quarterly	Estimate	Effluent
pH[3]			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, mg/L			Monthly/Quarterly	Grab	Effluent
Total Mercury[4], ng/L			Monthly/Quarterly	Grab	Effluent
Total Barium, mg/L			Monthly/Quarterly	Grab	Effluent
Total Zinc, µg/L			Monthly/Quarterly	Grab	Effluent
Total Arsenic, µg/L			Monthly/Quarterly	Grab	Effluent
Total Boron, 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
Temperature, ^{0}C			Monthly/Quarterly	Grab	Effluent
Conductivity, µmho/cm			Monthly/Quarterly	Grab	Effluent

Notes:

1. Please See Special Condition A. (29.).
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 pH shall not be less than 6.0 standard units nor greater than 9.0 standard units.
4. The facility shall use EPA method 1631E.

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 (15A NCAC 02B .0506(a)(1)(E)).

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

A. (13.)EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 005)[1]

[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 once-through non-contact chiller water and stormwater from outfall 005. Such discharges shall be limited and monitored[3] by the Permittee as specified below:

PARAMETER	LIMITS		MONITORING REQUIREMENTS		
	Daily Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow			Weekly	Pump Logs or Estimate	Effluent
Temperature, °C			Weekly	Grab	Effluent
TSS, mg/L			Weekly	Grab	Effluent
Total Arsenic, µg/L			Monthly	Grab	Effluent
Total Selenium, µg/L			Monthly	Grab	Effluent
TDS, mg/L			Monthly	Grab	Effluent
Total Hardness, mg/L			Monthly	Grab	Effluent

Notes:

1. Please See Special Condition A. (29.).

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

A. (14.) ADDITIONAL CONDITIONS AND DEFINITIONS

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 such as those commonly used for transformer fluid.
9. Continued intake screen backwash and non-contact cooling water are permitted without limitations or monitoring requirements.
10. Nothing contained in this permit shall be construed as a waiver by the Permittee or any right to a hearing it may have pursuant to State or Federal laws or regulations.

A. (15.) BOILER 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 92-99+ 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 discharge 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 wastewater 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 Belews Creek 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 pHs of no less than 6.5 prior to metal cleaning waste addition.
4. Four days retention time in ash pond with effluent 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 ($NaBrO_2$), ammonium carbonate ($(NH_4)_2CO_3$-H_2O, and ammonium hydroxide (NH_4OH).
    b. Iron removal step – hydrochloric acid (HCl), ammonium bifluoride ($(NH_4)HF_2$ and proprietary inhibitors.
7. Maximum dilution of wastewater before entering ash pond: 6 to 1.
8. If monitoring of basin effluents (as required by the permit) after treatment of metal cleaning wastes reveals discharges exceed the limits of the permit, Permittee will:

1) re-close the basin discharge,
2) conduct such in-basin sampling as necessary to determine the cause of nonconformance,
3) take appropriate corrective actions, and
4) file a report with EPA including all pertinent data.

A. (16.) SPECIAL CONDITION FOR ASH POND DISCHARGE

Beginning on the effective date of this permit and lasting until expiration, there shall be no discharge of plant wastewater to the ash pond unless the Permittee provides and maintains at all times a minimum free water volume (between the top of the sediment level and the minimum discharge elevation) 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. The Permittee shall determine and report to the permit issuing authority the following on an annual basis:

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 pond for the following year.

Present information indicates a needed volume of 86.2 acre-feet in addition to solids that will be deposited to the ash pond; any change 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.

A. (17.) CHRONIC TOXICITY PASS/FAIL PERMIT LIMIT

[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 26.5% for decanting, 3.7% for dewatering, and 10.9% for new Retention Basin (Outfall 003A).

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 monthly test procedure 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, 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, 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 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. (18.) 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 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. (19.) CLEAN WATER ACT SECTION 316 (B)

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 with the next renewal application.

A. (20.) 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. See Attachment 1.

A. (21.) STRUCTURAL INTEGRITY INSPECTIONS OF ASH POND DAMS

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

A. (22.) FISH TISSUE MONITORING NEAR ASH POND DISCHARGE (Outfall 003)

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. Upon approval, the monitoring plan shall become the enforceable part of the permit.

Copies of all the study plans, study results, and any other applicable materials should be submitted to:

1) Electronic Version Only (pdf and CD)
   Division of Water Resources
   WQ Permitting Section - NPDES
   1617 Mail Service Center
   Raleigh, NC 27699-1617
2) Electronic Version (pdf and CD) and Hard Copy
   Division of Water Resources
   Water Sciences Section
   1621 Mail Service Center
   Raleigh, NC 27699-1621

A. (23.) PUMPING FROM DAN RIVER INTO BELEWS LAKE

The Division recognizes the additional cooling water demand on Belews Lake associated with new scrubbers. The operation of a permanent pump station and cooling water intake structure, receiving water pumped from the Dan River to Belews Lake, is hereby authorized under the following conditions:

- Pumping must not lower the flow in Dan River below 110 cfs, which is the Division of Water Resources target flow recommendation for this site. River flow at the pumping location must be checked at a newly installed USGS gauge station near the old USGS Pine Hall gauge station prior to each daily pumping event.
- The Dan River pumps intake will be positioned above the river bottom and have an approach velocity less than or equal to 0.5 feet/second at the inlet of the velocity caps and at the 2mm fine mesh traveling screens to minimize fish entrainment and impingement.
- The withdrawal location will be near the confluence of the spillway channel below Belews Lake Dam and the Dan River. This is a scoured bottom area that does not provide suitable aquatic habitat.
- The facility will perform routine semi-annual lake monitoring to assess limnological conditions in Belews Lake.
- Pumping may occur to a maximum water level in Belews Lake of 724.5 feet msl.
- Pumping must not occur from April 1 through June 30 of any year, in order to avoid the fish spawning period.
- At least 80% of ambient flow as recorded at the new Pine Hall USGS gauge must be bypassed (i.e., withdraw no more than 20% of flow).

This approval allows the operation of two 50 cfs velocity caps, a permanent settling pond with approximately 6000 square feet of surface area, a 4-pump pumping station with a capacity not to exceed 100 cfs, force main, an electrical substation with an access road, and a diffuser in Belews Lake. Please note that this authorization does not affect the legal requirements to obtain other permits or approvals which may be required for this activity by the Division of Water Resources or other agencies, including the Division of Land Resources, or the US Army Corps of Engineers. The Division reserves the right to reopen this permit in the event of unforeseen negative environmental impacts due to this pumping operation.

A. (24.) BROMIDE REDUCTION EVALUATION

Duke Energy shall investigate technical solutions to reduce bromide in the discharge from Outfall 003. Duke Energy shall submit semi-annual reports on the efforts it undertakes to reduce bromide at the source as well as efforts at downstream water treatment plants to reduce formation of total trihalomethanes (TTHM). Duke Energy shall continue to work with the downstream public water supply systems to find a solution to the issue of the TTHM formation in the distribution system of the downstream water systems. The semi-annual status reports (3 copies) shall be submitted to the Division of Water Resources, Complex NPDES Permitting Unit.

In the event of a Maximum Contaminant Level (MCL) violation for Total Trihalomethanes (THMs) at the Town of Madison, the City of Eden or any wholesale customers of those systems, Duke Energy will within 14 days of the request provide the latest available bromide monitoring data that can be incorporated into required Public Notices issued by the public water system(s).

A. (25.)DOMESTIC WASTEWATER TREATMENT PLANT

The domestic wastewater treatment plant shall be properly operated and maintained to ensure treatment of domestic wastewater to secondary levels.

A. (26.) INSTREAM MONITORING

The facility shall conduct semiannual instream monitoring (approximately 0.5 mile upstream and approximately 0.5 mile downstream of the ash pond discharge) for total arsenic, total selenium, total mercury (method 1631E), total chromium, dissolved lead, dissolved cadmium, dissolved copper, dissolved zinc, bromide, total hardness, turbidity, and total dissolved solids (TDS). The monitoring results shall be reported in the monthly DMRs and submitted with the NPDES permit renewal application. The monitoring shall be conducted in accordance with the Sampling Plan approved by the Division. Upon approval, the monitoring plan shall become the enforceable part of the permit.

A. (27.) DISCHARGE FROM SEEPAGE

Existing Discharges from Seepage

The facility identified 11 unpermitted seeps from the ash settling basin. However, 4 of the seeps do not need coverage under the permit based on the low concentration of the constituents associated with the coal ash and or/absence of the discharge to the "Waters of the State". These seeps are not considered point-source wastewater discharges under the Clean Water Act. Seeps that have not been covered by the permit shall be sampled once during the next permit cycle and the results shall be submitted with the next renewal application. The samples shall be analyzed for all the parameters listed in the permit for seep outfalls.

The locations of the seeps covered by the permit are identified below and are depicted on the map attached to the permit.

Table 1. Discharge Coordinates and Assigned Outfall Numbers

Discharge ID	Latitude	Longitude	Outfall number
S-2	36.297	-80.085	102
S-6	36.296	-80.061	106
S-7	36.287	-80.064	107
S-8	36.280	-80.078	108
S-9	36.280	-80.078	109
S-14	36.2922081	-80.06241146	114
S-15	36.299270	-80.075356	115

The outfall for these discharges is through an effluent channel meeting the requirements in 15A NCAC 2B .0228 with an exception of S-2, S-6, and S-15. The effluent channel requirements for seeps S-2, S-6, and S-15 are not met due to the previous Jurisdictional Determinations or presence of side streams. Therefore, for these seeps (S-2, S-6, and S-15) the facility shall, within 90 days of the effective date of the permit, determine if the discharge seep meets the state water quality standards established in 15A NCAC 2B .0200 and submit the results of this determination to the Division. If the standards are not contravened, the facility shall conduct monitoring for the parameters specified in A. (6.).

If any of the water quality standards are exceeded, the facility shall be considered in violation until Option # 1 listed below is fully implemented.

Within 180 days of the effective date of this permit, the permittee shall demonstrate, through in-stream sampling meeting the requirements of condition A. (26.), that the water quality standards in the receiving stream are not contravened.

Discharges from Seepage Identified After Permit Issuance

The facility shall comply with the "Plan for Identification of New Discharges" as contained in Attachment 2. For any discharge identified pursuant to this Plan, the facility shall, within 90 days of the seep discovery, determine if the discharge seep meets the state water quality standards established in 15A NCAC 2B .0200 and submit the results of this determination to the Division. If the standards are not contravened, the facility shall conduct monitoring for the parameters specified in A. (6.).

If any of the water quality standards are exceeded, the facility shall be considered in violation until one of the options below is fully implemented:

1) Submit a complete application for 404 Permit (within 30 days after determining that a water quality standard is exceeded) to pump the seep discharge to one of the existing outfalls, install a pipe to discharge the seep to the Belews Lake/Dan River, or install an *in-situ* treatment system. After the 404 Permit is obtained, the facility shall complete the installation of the pump, pipe, or treatment system within 180 days from the date of the 404 permit receipt and begin pumping/discharging or treatment.
2) Demonstrate through modeling that the decanting and dewatering of the ash basin will result in the elimination of the seep. The modeling results shall be submitted to the Division within 120 days from the date of the seep discovery. Within 180 days from the completion of the dewatering the facility shall confirm that the seep flow ceased. If the seep flow continues, the facility shall choose one of the other options in this Special Condition.
3) Demonstrate that the seep is discharging through the designated "Effluent Channel" and the water quality standards in the receiving stream are not contravened. This demonstration should be submitted to the Division no later than 180 days from the date of the seep discovery. The "Effluent Channel" designation should be established by the DEQ Regional Office personnel prior to the issuance of the permit. This permit shall be reopened for cause to include the "Effluent Channel" in a revised permit.

All effluent limits, including water quality-based effluent limits, remain applicable notwithstanding any action by the Permittee to address the violation through one of the identified options, so that any discharge in exceedance of an applicable effluent limit is a violation of the Permit as long as the seep remains flowing.

The new identified seep is not permitted until the permit is modified and the new seep included in the permit and the new outfall established for the seep.

A.(28.) 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. (29.) 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. (30.) THERMAL VARIANCE

In order to continue the Thermal Variance beyond the term of this permit the facility shall develop and conduct comprehensive 316(a) studies. The 316(a) studies shall be performed in accordance with the Division of Water Resources 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 316(a) Guidance Manual, dated 1977, and the Region 4 letter to NCDENR, dated June 3, 2010.

The study shall be performed in accordance with the following schedule:

1) Effective date of the permit +60 days – submit the Draft Study Plan to the DEQ and EPA, the DEQ will perform the Plan review and provide the comments to Duke within 30 days of the Plan receipt.
2) Effective date of the permit +120 days – meet with the DEQ to provide responses to the DEQ/EPA comments and discuss the Study Plan.
3) Effective date of the permit +150 days – submit the Final Study Plan to the DEQ and to the EPA.
4) After obtaining an approval of the Study Plan, conduct 1 year of the monitoring.
5) 120 days after completing the monitoring, submit the study results and application for 316a variance to DEQ.

Copies of all the study plans, study results, and any other applicable materials should be submitted to:

1) Electronic Version Only (pdf and CD)
   Division of Water Resources
   WQ Permitting Section - NPDES
   1617 Mail Service Center
   Raleigh, NC 27699-1617
2) Electronic Version (pdf and CD) and Hard Copy
   Division of Water Resources
   Water Sciences Section
   1621 Mail Service Center
   Raleigh, NC 27699-1621

A. (31.) FGD TREATMENT

To facilitate technology transfer of the membrane ultrafiltration technology, the facility shall:

1) Weekly sampling at the following sample locations: treatment system influent, bioreactor influent, bioreactor effluent and ultrafiltration effluent. This would be SP-1, SP-2, and SP-3 as shown on the diagram attached to the permit, and a new sample location for ultrafiltration effluent –designated as SP4 (prior to re-introduction of flow from the heat exchangers).
2) Laboratory analyses for the following parameters: Total & dissolved mercury, arsenic and selenium. Also analyses for selenate, selenite, nitrate-nitrite as N, and Total Suspended Solids (TSS), turbidity, conductivity, oxidation-reduction potential, and total residual oxidants.
3) The sample results should be submitted quarterly to EPA and DEQ/DWR, along with annual reports of all data, for the year following installation of the ultrafiltration technology (November 1, 2018 – October 30, 2019) and the year following the date that BAT limits begin to apply (November 1, 2019 – October 30, 2020).

GROUNDWATER MONITORING PLAN

The permittee shall conduct groundwater monitoring as may be required to determine the compliance of this NPDES permitted facility with the current groundwater Standards found under 15A NCAC 2L .0200.

1. WELL CONSTRUCTION
   a. Monitoring wells shall be constructed in accordance with 15A NCAC 02C .0108 (Standards of Construction for Wells Other than Water Supply) and any other jurisdictional laws and regulations pertaining to well construction.
   b. Monitoring wells must be constructed by a North Carolina Certified Well Contractor, the property owner, or the property lessee according to General Statutes 87-98.4. If the construction is not performed by a certified well contractor, the property owner or lessee, provided they are a natural person, must physically perform the actual well construction activities.
   c. Within 30 days of completion of well construction, a completed Well Construction Record (Form GW-1) must be submitted for each compliance monitoring well to Division of Water Resources, Water Quality Regional Operations Section (WQROS), 1636 Mail Service Center, Raleigh, NC 27699-1636.
   d. The Winston-Salem Regional Office, telephone number (336) 771-5000, shall approve the location of new compliance monitoring wells prior to installation. The regional office shall be notified at least 48 hours prior to the construction of any compliance monitoring well and such notification to the WQROS regional supervisor shall be made from 8:00 a.m. until 5:00 p.m. on Monday through Friday, excluding State Holidays.
   e. All monitoring wells shall be regularly maintained. Such maintenance shall include ensuring that the well caps are rust-free and locked at all times, the outer casing is upright and undamaged, and the well does not serve as a conduit for contamination.
   f. If the Permittee intends to abandon a compliance monitoring well either temporarily or permanently, the Permittee shall justify the abandonment and request approval from the WQROS Regional Office within 30 business days prior to initiating abandonment procedures.
   g. Monitoring wells shall be abandoned in accordance with 15A NCAC 02C .0113 (Abandonment of Wells). Within 30 days of completion of well abandonment, a completed Well Abandonment Record (Form GW-30) must be submitted for each monitoring well to WQROS, 1636 Mail Service Center, Raleigh, NC 27699-1636.
   h. A map shall be provided within 60 days when compliance wells are added or deleted from the plan. The map shall be of appropriate scale to easily identify all features overlaid on the most recent aerial photograph. At a minimum, the map shall include the following information:
      i. The location and identity of each monitoring well.
      ii. The date the map is prepared and/or revised.

iii. Topographic contours in no more than ten (10) foot intervals. For areas of high relief, 20 foot intervals shall be acceptable.

i. The map and any supporting documentation shall be sent to the WQROS, 1636 Mail Service Center, Raleigh, NC 27699-1636.

2. GROUNDWATER SAMPLING AND COMPLIANCE.

a. 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) or (d) as well as enforcement actions in accordance with North Carolina General Statute 143-215.6A through 143-215.6C.

b. Monitoring wells shall be sampled after construction and thereafter at the frequencies and for the parameters as specified in this plan. All maps, well construction forms, well abandonment forms and monitoring data shall refer to the permit number and the well nomenclature.

c. Per 15A NCAC 02H .0800, a Division certified laboratory shall conduct all laboratory analyses for the required effluent, groundwater or surface water parameters.

d. The measurement of water levels shall be made prior to purging the wells. The depth to water in each well shall be measured from the surveyed point on the top of the casing.

e. The measuring points (top of well casing) of all monitoring wells shall be surveyed to provide the relative elevation of the measuring point for each monitoring well. The measuring points (top of casing) of all monitoring wells shall be surveyed relative to a common datum.

f. Two copies of the monitoring well sampling shall be submitted on a Compliance Monitoring Form (GW-59CCR), and received no later than 60 days from the sampling date. Copies of the laboratory analyses shall be kept on site, and made available upon request. The Compliance Monitoring Form (GW-59CCR) shall include this permit number and the appropriate well identification number. The Compliance Monitoring Forms (GW-59CCR) shall be submitted to the Division of Water Resources Information Processing Unit, 1617 Mail Service Center, Raleigh, North Carolina 27699-1617

g. For groundwater samples that exceed the ground water quality standards in 15A NCAC 02L .0202, the Regional Office shall be contacted within 30 days after submission of the groundwater monitoring form; an evaluation may be required to determine the impact of the waste disposal activities. Failure to do so may subject the permittee to a Notice of Violation, fines, and/or penalties.

h. The provisions of sections 3(f) and 3(g) apply only to the sampling events described in 3(b) above. The reporting requirements for any sampling events other than those described in 3(b) above shall be in accordance with the general provisions of 15A NCAC 02L.

3. MONITORING WELLS, PARAMETERS, AND SAMPLING FREQUENCY.

a. Laboratory methods shall be EPA approved and sufficient to detect constituent quantities at or below their individual 15A NCAC 02L groundwater standards.

b. The following chart contains the compliance monitoring wells to be sampled, the parameters to be sampled, and the frequency in which the samples shall be collected.

MONITORING WELLS	*PARAMETERS*				*FREQUENCY*
MW-200S, MW-200D, MW-201D, MW-202S, MW-202D, MW-203S, MW-203D, MW-204S, MW-204D	*Laboratory Parameters*				**January, May, September**
	Aluminum	*Antimony*	*Arsenic*	*Barium*	
	Beryllium	*Boron*	*Cadmium*	*Calcium*	
	Cobalt	*Chromium*	*Copper*	*Iron*	
	Lead	*Magnesium*	*Manganese*	*Molybdenum*	
	Mercury	*Nickel*	*Potassium*	*Selenium*	
	Sodium	*Strontium*	*Thallium*	*Vanadium*	
	Zinc	*Chloride*	*Sulfate*	*Alkalinity*	
	Bicarbonate	*Carbonate*	*Total Dissolved Solids*	*Total Suspended Solids*	
	Field Parameters				
	Turbidity	*pH*	*Temperature*	*Specific Conductance*	
	Dissolved Oxygen	*Oxidation Reduction Potential*	*Water level*		

Attachment 2

Plan for Identification of New Discharges, and subsequent amendments (State Enforceable Only)

https://ncdenr.s3.amazonaws.com/s3fs-public/Water%20Quality/NPDES%20Coal%20Ash/Belews%20Creek%20Plan%20for%20Identification%20of%20New%20Discharges%20Sept%2030%202014.pdf