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 Water Quality Commission, and the Federal Water Pollution Control Act, as amended,

Duke Energy Progress, LLC

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

L. V. Sutton Energy Complex
801 Sutton Steam Plant Road, Wilmington
New Hanover County

to receiving waters designated as the Cape Fear River and Sutton Lake in the Cape Fear River Basin in accordance with the discharge limitations, monitoring requirements, compliance boundary map, and other applicable conditions set forth in Parts I, II, and III.

This permit modification shall become effective

This permit and the authorization to discharge shall expire at midnight on

Signed this day

S. Jay Zimmerman P.G., Director
Division of Water Resources
By the 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 Progress, LLC is hereby authorized to:

1. Continue to discharge cooling water, low volume wastes, stormwater, and treated wastewater from internal wastewater outfalls 005, 006, 007, and 009 to the Effluent Channel, and internal stormwater outfalls SW001, SW002, SW003, SW004, SW005, SW006, and SW007 to the Effluent Channel (the Effluent Channel discharges via external Outfall 008 to the Sutton Lake); ash pond discharge, groundwater, treated wastewater, landfill leachate, and stormwater runoff (Outfall 001, Outfall 002 and Outfall 004); Outfall 001 may also include cooling water from Outfall 008; at a facility located at Sutton Steam Electric Plant, 801 Sutton Steam Plant Road, Wilmington, New Hanover County, and

2. Discharge wastewater (via Outfall 002, Outfall 004, and Outfall 008) at the locations specified on the attached map into the Sutton Lake which is classified C-Swamp waters in the Cape Fear River Basin.

3. Discharge non-contact stormwater (via Outfall 010 – North Pond Emergency Spillway and Outfall 011 – South Pond Emergency Spillway) from landfill (after landfill is capped) at the locations specified on the attached map into the Sutton Lake which is classified C-Swamp waters in the Cape Fear River Basin. Discharge is only allowed for storm events that exceeds 25-year 24-hour storm events.

4. Discharge treated wastewater, ash pond discharge, stormwater, landfill leachate, and groundwater (via Outfall 001) at the location specified on the attached map into the Cape Fear River, classified C-Swamp waters in the Cape Fear River Basin.

Part I

A. (1.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 001- normal operation/decanting) [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 to the Cape Fear River from **Outfall 001 -** removing the free water above the settled ash layer that does not involve mechanical disturbance of the ash **(recirculation cooling water, non-contact cooling water, and treated wastewater from outfalls 002, and 004)**. Such discharges shall be limited and monitored[6] by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[1]
Flow, MGD			Daily	Estimate or pump logs	Effluent
Temperature[1,2], ^{0}C			Quarterly	Grab	U, D
Temperature[2], ^{0}C			Daily	Grab	Effluent
pH[7]	6.0 ≤ pH ≤ 9.0		Weekly	Grab	Effluent
Oil and Grease	15.0 mg/L	20.0 mg/L	Weekly	Grab	Effluent
Total Suspended Solids, mg/L[8]	30.0 mg/L	100.0 mg/L	Weekly	Grab	Effluent
Total Nitrogen (NO_2 + NO_3 + TKN), mg/L			Weekly	Grab	Effluent
Total Phosphorus, mg/L			Weekly	Grab	Effluent
Dissolved Oxygen, mg/L			Weekly	Grab	Effluent
Acute Toxicity[3]			Monthly	Grab	Effluent
Total Mercury[4]			Weekly	Grab	Effluent
Total Arsenic	10.0 µg/L	50.0 µg/L	Weekly	Grab	Effluent
Total Selenium	5.0 µg/L	56.0 µg/L	Weekly	Grab	Effluent
Total Iron, mg/L			Weekly	Grab	Effluent
Total Lead, µg /L			Weekly	Grab	Effluent
Total Cadmium			Weekly	Grab	Effluent
Total Aluminum, mg/L			Weekly	Grab	Effluent
Total Copper[9]	7.88 µg/L	10.47 µg/L	Weekly	Grab	Effluent
Total Nickel[9]	25.0 µg/L	335.2 µg/L	Weekly	Grab	Effluent
Total Zinc, µg/L			Weekly	Grab	Effluent
Turbidity[5]			Weekly	Grab	Effluent
Total Hardness, mg/L			Weekly	Grab	Effluent

Notes:

1. U: Upstream, 2700 feet above outfall (intake structure on the Cape Fear River). D: Downstream, 1.25 miles below outfall. **Instream monitoring is provisionally waived in light of the permittee's participation in the Lower Cape Fear River Basin Association. Instream monitoring shall be conducted as stated in this permit should the permittee end its participation in the Association.**
2. The receiving water's temperature shall not be increased by more than 2.8ºC above ambient water temperature and in no case exceed 32ºC, except in the mixing zone described as follows: Extending from the eastern shore to the centerline of the river and extending not more than 1.25 miles downstream nor more than 2700 feet from the point of discharge. The cross-sectional area of the mixing zone shall not exceed 9% of the total cross sectional area of the river at the point of discharge nor 2.5% at the mouth of Toomer's Creek.
3. Acute Toxicity Limit (Fathead Minnow, 24 hour at 90%); Part I, Condition A. (13.).
4. The facility shall use EPA method 1631E.
5. 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.

6. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. Please See Special Condition A. (25.).
7. The facility shall continuously monitor pH when the decanting process commences (and the pump is operating) 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.
8. The facility shall continuously monitor TSS concentration when the decanting process commences (and the pump is operating) 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.
9. The limits will become effective 36 months from the permit effective date. Please see Special Condition A. (30.).

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.

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

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

No later than August 1, 2019 separate the discharge of treated wastewaters from the discharge of waters from Sutton Lake. Treated wastewaters include wastewaters from the ash pond discharge, groundwater extraction, landfill leachate, stormwater runoff, and any additional wastewaters from Outfalls 002 and 004. Treated wastewaters shall continue to be discharged through Outfall 001 and subject to the Effluent Limitations and Monitoring Requirements in Section A. (1.)

A. (2.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 001-dewatering phase) [15A NCAC 02B .0400 et seq., 02B .0500 et seq.]

During the period beginning on the commencement date of the dewatering operation and lasting until expiration, the Permittee is authorized to discharge to the Cape Fear River from **Outfall 001** ***Dewatering-removing the interstitial water/ash pore water*** **(recirculation cooling water, non-contact cooling water, and treated wastewater from outfalls 002, and 004)**. Such discharges shall be limited and monitored[6] by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[1]
Flow		2.1 MGD (applies only to ash pond discharge)	Daily	Estimate or pump logs	Effluent
Flow			Daily	Estimate or pump logs	Effluent
Temperature[1,2], ^{0}C			Quarterly	Grab	U, D
Temperature[2], ^{0}C			Daily	Grab	Effluent
pH[9]	6.0 ≤ pH ≤ 9.0		Daily	Daily	Effluent
Oil and Grease	15.0 mg/L	20.0 mg/L	Weekly	Grab	Effluent
Total Suspended Solids mg/L[10]	30.0 mg/L	100.0 mg/L	Weekly	Grab	Effluent
Total Nitrogen (NO_2 + NO_3 + TKN), mg/L			Weekly	Grab	Effluent
Total Phosphorus, mg/L			Weekly	Grab	Effluent
Dissolved Oxygen, mg/L			Weekly	Grab	Effluent
Total Chlorides[7]	230.0 mg/L	230.0 mg/L	Weekly	Grab	Effluent
Acute Toxicity[3]			Monthly	Grab	Effluent
Total Iron, mg/L			Weekly	Grab	Effluent
Total Cadmium, µg /L			Weekly	Grab	Effluent
Chromium (VI), µg /L			Weekly	Grab	Effluent
Total Aluminum	8.0 mg/L	8.0 mg/L	Weekly	Grab	Effluent
Total Nickel[8]	25.0 µg/L	335.2 µg/L	Weekly	Grab	Effluent
Total Lead	2.94 µg /L	75.4 µg /L	Weekly	Grab	Effluent
Total Arsenic	10.0 µg/L	50.0 µg/L	Weekly	Grab	Effluent
Total Selenium	5.0 µg/L	56.0 µg/L	Weekly	Grab	Effluent
Total Mercury[4]	47.0 ng/L		Weekly	Grab	Effluent
Total Copper, µg/L[8]	7.88 µg/L	10.47 µg/L	Weekly	Grab	Effluent
Total Zinc, µg/L			Weekly	Grab	Effluent
Turbidity[5]			Weekly	Grab	Effluent
Total Hardness, mg/L			Weekly	Grab	Effluent

Notes:

1. U: Upstream, 2700 feet above outfall (intake structure on the Cape Fear River). D: Downstream, 1.25 miles below outfall. **Instream monitoring is provisionally waived in light of the permittee's participation in the Lower Cape Fear River Basin Association. Instream monitoring shall be conducted as stated in this permit should the permittee end its participation in the Association.**
2. The receiving water's temperature shall not be increased by more than 2.8°C above ambient water temperature and in no case exceed 32°C, except in the mixing zone described as follows: Extending from the eastern shore to the centerline of the river and extending not more than 1.25 miles downstream nor more than 2700 feet from the point of discharge. The cross-sectional area of the mixing zone shall not exceed 9% of the total cross sectional area of the river at the point of discharge nor 2.5% at the mouth of Toomer's Creek.
3. Acute Toxicity Limit (Fathead Minnow, 24 hour at 90%); Part I, Condition A. (13.).
4. The facility shall use EPA method 1631E, this is an annual average limit.

5. 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.
6. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. Please See Special Condition A. (25.).
7. The discharge from this facility shall not cause the Chlorides level in the receiving stream to exceed 230 mg/L. If the Chlorides level exceeds 230 mg/L due to natural background conditions, the discharge cannot cause Chlorides to increase in the receiving stream.
8. The limits will become effective 36 months from the permit effective date. Please see Special Condition A. (30.).
9. The facility shall continuously monitor pH when the decanting process commences (and the pump is operating) 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.
10. The facility shall continuously monitor TSS concentration when the decanting process commences (and the pump is operating) 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.

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.

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

Discharge to Sutton Lake during dewatering is not authorized.

No later than August 1, 2019 separate the discharge of treated wastewaters from the discharge of waters from Sutton Lake. Treated wastewaters include wastewaters from the ash pond discharge, groundwater extraction, landfill leachate, stormwater runoff, and any additional wastewaters from Outfalls 002 and 004. Treated wastewaters shall continue to be discharged through Outfall 001 and subject to the Effluent Limitations and Monitoring Requirements in Section A. (2.)

A. (3.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 002-normal operation)

[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 to Sutton Lake and/or to the 1984 ash pond from **Outfall 002 -** removal of free water above the settled ash layer that does not involve mechanical disturbance of the ash **(Old Ash Pond – coal pile runoff, low volume wastes, ash sluice water, and stormwater runoff)**. Such discharges to Sutton Lake shall be limited and monitored[3] by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow, MGD			Weekly	Pump Logs or similar	Effluent
Temperature, ^{0}C			Weekly	Grab	Effluent
Oil and Grease	15.0 mg/L	20.0 mg/L	Weekly	Grab	Effluent
Total Suspended Solids	30.0 mg/L	100.0 mg/L	Weekly	Grab	Effluent
pH	6.0 ≤ pH ≤ 9.0		Weekly	Grab	Effluent
Total Copper	7.88 µg/L	10.47 µg/L	Weekly	Grab	Effluent
Total Zinc, µg/L			Weekly	Grab	Effluent
Total Arsenic	10.0 µg/L	50.0 µg/L	Weekly	Grab	Effluent
Total Selenium	5.0 µg/L	56.0 µg/L	Weekly	Grab	Effluent
Total Mercury[1]			Weekly	Grab	Effluent
Total Iron, mg/L			Weekly	Grab	Effluent
Total Nickel	25.0 µg/L	335.2 µg/L	Weekly	Grab	Effluent
Total Aluminum, mg/L			Weekly	Grab	Effluent
Acute Toxicity [2]			Monthly	Grab	Effluent

Notes:

1. The facility shall use EPA method 1631E.
2. Acute Toxicity Limit (Fathead Minnow, 24 hour at 90%); Part I, Condition A. (13.).
3. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. Please See Special Condition A. (25.).
4. The receiving water's temperature shall not be increased by more than 2.8°C above ambient water temperature and in no case exceed 32°C.

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.

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

A. (4.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 004-normal operation/decanting)

[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 to Sutton Lake and/or to Outfall 001 from **Outfall 004 -** removal of free water above the settled ash layer that does not involve mechanical disturbance of the ash **(1984 New Ash Pond – ash sluice water, coal pile runoff, groundwater, landfill leachate, low volume wastes, and stormwater runoff)**. Such discharges to Sutton Lake shall be limited and monitored[3] by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow, MGD			Weekly	Pump Logs or similar	Effluent
Temperature, ^{0}C			Weekly	Grab	Effluent
Oil and Grease	15.0 mg/L	20.0 mg/L	Weekly	Grab	Effluent
Total Suspended Solids[4]	30.0 mg/L	100.0 mg/L	Weekly	Grab	Effluent
pH[5]	6.0 ≤ pH ≤ 9.0		Weekly	Grab	Effluent
Total Copper	7.88 µg/L	10.47 µg/L	Weekly	Grab	Effluent
Total Zinc, µg/L			Weekly	Grab	Effluent
Total Arsenic	10.0 µg/L	50.0 µg/L	Weekly	Grab	Effluent
Total Selenium	5.0 µg/L	56.0 µg/L	Weekly	Grab	Effluent
Total Mercury[1]			Weekly	Grab	Effluent
Total Iron, mg/L			Weekly	Grab	Effluent
Total Nickel	25.0 µg/L	335.2 µg/L	Weekly	Grab	Effluent
Total Aluminum, mg/L			Weekly	Grab	Effluent
Acute Toxicity [2]			Monthly	Grab	Effluent

Notes:

1. The facility shall use EPA method 1631E.
2. Acute Toxicity Limit (Fathead Minnow, 24 hour at 90%); Part I, Condition A. (13).
3. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. Please See Special Condition A. (25.).
4. The facility shall continuously monitor TSS concentration when the dewatering process commences (and the pump is operating) 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.
5. The facility shall continuously monitor pH when the dewatering process commences (and the pump is operating) 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.

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.

The facility is allowed to drawdown the wastewater in the ash pond to no less than three feet above the ash.
When the facility commences the ash pond/ponds decommissioning process, the facility shall treat the wastewater discharged from the ash pond/ponds using the physical-chemical treatment facilities.

A. (5.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 004-dewatering phase)

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

During the period beginning on the commencement date of the dewatering operation and lasting until expiration, the Permittee is authorized to discharge to Outfall 001 from **Outfall 004 *Dewatering-removing the interstitial water/ash pore water* (1984 New Ash Pond – ash sluice water, coal pile runoff, groundwater, landfill leachate, low volume wastes, and stormwater runoff)**. Such discharges shall be limited and monitored[5] at Outfall 001 by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow		2.1 MGD (applies only to ash pond discharge)	Daily	Estimate or pump logs	Effluent
Temperature, ^{0}C			Weekly	Grab	Effluent
pH[7]	6.0 ≤ pH ≤ 9.0		Daily	Daily	Effluent
Oil and Grease	15.0 mg/L	20.0 mg/L	Weekly	Grab	Effluent
Total Suspended Solids mg/L[6]	30.0 mg/L	100.0 mg/L	Weekly	Grab	Effluent
Total Nitrogen (NO_2 + NO_3 + TKN), mg/L			Weekly	Grab	Effluent
Total Phosphorus, mg/L			Weekly	Grab	Effluent
Dissolved Oxygen, mg/L			Weekly	Grab	Effluent
Total Chlorides	230.0 mg/L	230.0 mg/L			
Acute Toxicity[2]			Monthly	Grab	Effluent
Total Iron, mg/L			Weekly	Grab	Effluent
Total Cadmium, µg /L			Weekly	Grab	Effluent
Chromium (VI), µg /L			Weekly	Grab	Effluent
Total Aluminum	8.0 mg/L	8.0 mg/L	Weekly	Grab	Effluent
Total Nickel	25.0 µg/L	335.2 µg/L	Weekly	Grab	Effluent
Total Lead	2.94 µg /L	75.4 µg /L	Weekly	Grab	Effluent
Total Arsenic	10.0 µg/L	50.0 µg/L	Weekly	Grab	Effluent
Total Selenium	5.0 µg/L	56.0 µg/L	Weekly	Grab	Effluent
Total Mercury[3]	47.0 ng/L		Weekly	Grab	Effluent
Total Copper, µg/L	7.88 µg/L	10.47 µg/L	Weekly	Grab	Effluent
Total Zinc, µg/L			Weekly	Grab	Effluent
Turbidity[4]			Weekly	Grab	Effluent

Notes:

1. The receiving water's temperature shall not be increased by more than 2.8ºC above ambient water temperature and in no case exceed 32ºC.
2. Acute Toxicity Limit (Fathead Minnow, 24 hour at 90%); Part I, Condition A. (13.).
3. The facility shall use EPA method 1631E, this is an annual average limit.
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.
5. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. Please See Special Condition A. (25.).
6. The facility shall continuously monitor TSS concentration when the dewatering process commences (and the pump is operating) 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.
7. The facility shall continuously monitor pH when the dewatering process commences (and the pump is operating) 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.

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.

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

A. (6.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 005)

[15A NCAC 02B .0400 et seq., 02B .0500 et seq.]
Beginning with the commencement of this discharge and lasting until expiration, the Permittee is authorized to discharge from ***Internal Outfall 005*** **(Combined Cycle Plant – ultrafilter water treatment system filter backwash, closed cooling water cooler blowdown, Reverse Osmosis/Electrodeionization system reject wastewater, and other low volume wastewater)** to the Effluent Channel. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow, MGD			Daily	Pump Logs or similar	Influent or Effluent
Oil and Grease	15.0 mg/L	20.0 mg/L	2/Month	Grab	Effluent
Total Suspended Solids	30.0 mg/L	100.0 mg/L	2/Month	Grab	Effluent
pH	6.0 ≤ pH ≤ 9.0		2/Month	Grab	Effluent

Notes:

1. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. Please See Special Condition A. (25.).

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

A. (7.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 006)

[15A NCAC 02B .0400 et seq., 02B .0500 et seq.]
Beginning with the commencement of this discharge and lasting until expiration, the Permittee is authorized to discharge from ***Internal Outfall 006*** **(Combined Cycle Plant – low volume wastewater including the Heat Recovery Steam generator blowdown and auxiliary boiler blowdown)** to the Effluent Channel. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow, MGD			Daily	Pump Logs or similar	Influent or Effluent
Oil and Grease	15.0 mg/L	20.0 mg/L	2/Month	Grab	Effluent
Total Suspended Solids	30.0 mg/L	100.0 mg/L	2/Month	Grab	Effluent
pH	6.0 ≤ pH ≤ 9.0		2/Month	Grab	Effluent

Notes:

1. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. Please See Special Condition A. (25.).

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

A. (8.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 007)

[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 007*** **(stormwater flows from the closure activities for coal-fired units, separate from stormwater outfalls SW001 through SW007)** to the Effluent Channel. Such discharges shall be limited and monitored[2] by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow, MGD			Weekly	Pump Logs or similar	Effluent
Oil and Grease	15.0 mg/L	20.0 mg/L	Monthly	Grab	Effluent
Total Suspended Solids	30.0 mg/L	100.0 mg/L	Monthly	Grab	Effluent
Total Arsenic, µg/L			Quarterly	Grab	Effluent
Total Selenium, µg/L			Quarterly	Grab	Effluent
Nitrate/nitrite as N, mg/L			Quarterly	Grab	Effluent
Total Mercury[1], ng/L			Quarterly	Grab	Effluent

Notes:

1. The facility shall use EPA method 1631E.
2. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. Please See Special Condition A. (25.).

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

A. (9.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 009)

[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 009*** **(low volume wastes from a new simple cycle combustion turbine)** to the Effluent Channel. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow, MGD			Weekly	Pump Logs or similar	Effluent
Oil and Grease	15.0 mg/L	20.0 mg/L	Monthly	Grab	Effluent
Total Suspended Solids	30.0 mg/L	100.0 mg/L	Monthly	Grab	Effluent
pH	6.0 ≤ pH ≤ 9.0		2/Month	Grab	Effluent

Notes:

1. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. Please See Special Condition A. (25.).

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

A. (10.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 008)[5]

[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 to Sutton Lake from **Outfall 008 (from internal wastewater outfalls 005, 006, 007, and 009, and internal stormwater outfalls SW001 through SW007)**.

Such discharges shall be limited and monitored[6] by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[1]
Flow, MGD			Daily	Estimate or pump logs	Effluent
Temperature ^{0}C			Daily	Grab	Effluent
Temperature [1,2], ^{0}C			Daily	Grab	Instream
Oil and Grease	15.0 mg/L	20.0 mg/L	Monthly	Grab	Effluent
Total Suspended Solids	30.0 mg/L	100.0 mg/L	Monthly	Grab	Effluent
Total Nitrogen (NO_2 + NO_3 + TKN), mg/L			Monthly	Grab	Effluent
Dissolved Oxygen, mg/L			Monthly	Grab	Effluent
pH	6.0 ≤ pH ≤ 9.0		Daily	Grab	Effluent
Total Phosphorus, mg/L			Monthly	Grab	Effluent
Acute Toxicity[3]			Quarterly	Grab	Effluent
Total Mercury[4], ng/L			Quarterly	Grab	Effluent
Total Arsenic[7]	10.0 µg/L	50.0 µg/L	Quarterly	Grab	Effluent
Total Selenium[7]	5.0 µg/L	56.0 µg/L	Quarterly	Grab	Effluent
Total Copper[7]	7.88 µg/L	10.47 µg/L	Quarterly	Grab	Effluent
Total Zinc, µg/L			Quarterly	Grab	Effluent

Notes:

1. Instream: 1000 feet from outfall.

2. The receiving water's temperature shall not be increased by more than 2.8ºC above ambient water temperature and in no case exceed 32ºC. The limit is not being implemented until further notice (Please see A. (20.)).
3. Acute Toxicity Limit (Fathead Minnow, 24 hour at 90%); Part I, Condition A. (23.).
4. The facility shall use EPA method 1631E.
5. The facility shall install a screen or a barrier at the end of the Effluent Channel to minimize fish migration into the Channel. The screen/barrier shall be installed by July 1, 2017.
6. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. Please See Special Condition A. (25.).
7. The limits become effective 36 months from the effective date of the permit (Please see A. (29.)).

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

A. (11.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 010)

[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 non-contact stormwater from **Outfall 010** – the North Pond Emergency Spillway of the capped landfill. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow, MGD			Per discharge event	Estimate	Effluent
pH	6.0 ≤ pH ≤ 9.0		Per discharge event	Grab	Effluent
Oil and Grease	15.0 mg/L	20.0 mg/L	Per discharge event	Grab	Effluent
TSS	30.0 mg/L	100.0 mg/L	Per discharge event	Grab	Effluent

1. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. Please See Special Condition A. (25.).

Discharge is only allowed for storm events that exceeds 25-year 24-hour storm events.

A. (12.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Outfall 011)

[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 non-contact stormwater from **Outfall 011** – the South Pond Emergency Spillway of the capped landfill. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	LIMITS		MONITORING REQUIREMENTS		
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow, MGD			Per discharge event	Estimate	Effluent
pH	6.0 ≤ pH ≤ 9.0		Per discharge event	Grab	Effluent
Oil and Grease	15.0 mg/L	20.0 mg/L	Per discharge event	Grab	Effluent
TSS	30.0 mg/L	100.0 mg/L	Per discharge event	Grab	Effluent

1. The permittee shall submit Discharge Monitoring Reports electronically using NC DWR's eDMR application system. Please See Special Condition A. (25.).

Discharge is only allowed for storm events that exceeds 25-year 24-hour storm events.

A. (13.) ACUTE TOXICITY LIMIT (MONTHLY)- OUTFALLS 001, 002, and 004.

[15A NCAC 02B .0200 et seq.]

The permittee shall conduct acute toxicity tests on a *monthly* basis using protocols defined in the North Carolina Procedure Document entitled "Pass/Fail Methodology For Determining Acute Toxicity In A Single Effluent Concentration" (Revised-July, 1992 or subsequent versions). The monitoring shall be performed as a Fathead Minnow (*Pimephales promelas*) 24 hour static test. The effluent concentration at which there may be at no time significant acute mortality is 90% (defined as treatment two in the procedure document). Effluent samples for self-monitoring purposes must be obtained during representative effluent discharge below all waste treatment.

All toxicity testing results required as part of this permit condition will be entered on the Effluent Discharge Monitoring Form (MR-1) for the month in which it was performed, using the parameter code TGE6C. Additionally, DWR Form AT-2 (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 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 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. (14.) STRUCTURAL INTEGRITY INSPECTIONS OF ASH POND DAMS

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

A. (15.) BEST MANAGEMENT PRACTICES PLAN

The Permittee shall continue to implement a Best Management Practices (BMP) Plan to control the discharge of oils and the hazardous and toxic substances listed in 40 CFR, Part 117 and Tables II and III of Appendix D to 40 CFR, Part 122, and shall maintain the Plan at the plant site and shall be available for inspection by EPA and DWR personnel.

A. (16.) INTAKE SCREEN BACKWASH

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

A. (17.) NO DISCHARGE OF PCBs

As specified by 40 CFR 423.13 (a), there shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

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.) FISH TISSUE MONITORING NEAR ASH POND DISCHARGE – OUTFALL 001, and OUTFALLS 002/004

The facility shall conduct fish tissue monitoring at two locations (Sutton Lake and Cape Fear River) 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 be 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 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. (20.) CLEAN WATER ACT SECTION 316 (a) THERMAL VARIANCE

In order to obtain thermal variance/mixing zone for Lake Sutton/Cape Fear 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 2 years of monitoring.

5) 270 days after completing the monitoring, submit the study results and an application for 316(a) 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. (21.) 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.

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. (22.) LOWER CAPE FEAR MODELING

The permittee may elect to conduct a water quality model of the dilution factor for Outfall 001. Contingent upon EPA approval of the Lower Cape Fear Modeling and its results, the Reasonable Potential Analysis will be conducted again and the permit limits will be based on the new flow numbers established by the model.

A. (23.) ACUTE TOXICITY LIMIT (QUARTERLY) – OUTFALL 008

[15A NCAC 02B .0200 et seq.]

The permittee shall conduct acute toxicity tests on a *quarterly* basis using protocols defined in the North Carolina Procedure Document entitled "Pass/Fail Methodology for Determining Acute Toxicity In A Single Effluent Concentration" (Revised December 2010 or subsequent versions). The monitoring shall be performed as a Fathead Minnow (*Pimephales promelas*) 24-hour static test. The effluent concentration at which there may be at no time significant acute mortality is 90% (defined as treatment two in the procedure document). The tests will be performed during the months of February, May, August, and November. 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.

Should any single quarterly monitoring indicate a failure to meet specified limits, then monthly monitoring will begin immediately until such time that a single test is passed. Upon passing, this monthly test requirement will revert to quarterly in the months specified above.

All toxicity testing results required as part of this permit condition will be entered on the Effluent Discharge Monitoring Form (MR-1) for the month in which it was performed, using the parameter code TGE6C. Additionally, DWR Form AT-2 (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 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, then monthly monitoring will begin immediately until such time that a single test is passed. Upon passing, this monthly test requirement will revert to quarterly in the months specified above. 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 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. (24.) INSTREAM MONITORING

The facility shall conduct semi-annual instream monitoring (intake structure on the Cape Fear River (approximately 3 miles upstream) and 2.6 miles downstream of the Outfall 001, and approximately 1000 ft. from Outfall 004 (Bay 8) for total arsenic, total selenium, total mercury (method 1631E), total chromium, chlorides, dissolved lead, dissolved cadmium, dissolved copper, dissolved zinc and total hardness (as $CaCO_3$). For the purpose of this requirement, semi-annual means that samples are collected twice per year with at least 120 calendar days between sampling events. The monitoring results shall be reported on the facility's Discharge Monitoring Reports and included with the NPDES permit renewal application. **Instream monitoring is provisionally waived considering the permittee's participation in the Lower Cape Fear River Basin Association provided the Association agrees to sample for all the parameters listed in this condition and at the specified locations. Instream monitoring shall be conducted as stated in this permit should the permittee end its participation in the Association.**

A. (25.) 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 and specify that, if a state does not establish a system to receive such submittals, then permittees must submit monitoring data and reports electronically to the Environmental Protection Agency (EPA). 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. Reporting Requirements [Supersedes Section D. (2.) and Section E. (5.) (a)]

Effective **December 21, 2016**, 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 DEQ / 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: https://www.federalregister.gov/documents/2015/10/22/2015-24954/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. (26.) APPLICABLE STATE LAW (STATE ENFORCEABLE ONLY) [G.S. 143-215.1(b)]

This facility shall meet the requirements of Senate Bill 729 (Coal Ash Management Act)**.** This permit may be reopened to include new requirements imposed by Senate Bill 729**.**

A. (27.) STORMWATER POLLUTION PREVENTION PLAN

The permittee shall **develop and implement** a Stormwater Pollution Prevention Plan (SPPP). The SPPP shall be maintained on site unless exempted from this requirement by the Division. The SPPP is public information. The SPPP should also specifically and separately address deconstruction, demolition, coal, and/or coal ash hauling or disposal activities. The SPPP shall include, at a minimum, the following items:

1. **Site Overview**. The Site Overview shall provide a description of the physical facility and the potential pollutant sources that may be expected to contribute to contamination of stormwater discharges. The Site Overview shall contain the following:

   (a) A general **location map** (USGS quadrangle map or appropriately drafted equivalent map), showing the facility's location in relation to transportation routes and surface waters; the name of the receiving waters to which the stormwater outfalls discharge, or if the discharge is to a municipal separate storm sewer system, the name of the municipality and the ultimate receiving waters; and accurate latitude and longitude of the points of stormwater discharge associated with industrial activity. The general location map (or alternatively the site map) shall identify whether any receiving waters are **impaired** (on the state's 303(d) list of impaired waters) or if the site is located in a **watershed for which a TMDL has been established**, and what the parameters of concern are.

   (b) A **narrative description** of storage practices, loading and unloading activities, outdoor process areas, dust or particulate generating or control processes, and waste disposal practices. A **narrative description** of the potential pollutants that could be expected to be present in the stormwater discharge from each outfall. The narrative should also reference deconstruction, demolition, coal, and/or coal ash hauling or disposal activities where applicable.

   (c) A **site map** drawn at a scale sufficient to clearly depict: the site property boundary; the stormwater discharge outfalls; all on-site and adjacent surface waters and wetlands; industrial activity areas (including storage of materials, disposal areas, process areas, loading and unloading areas, and haul roads); site topography and finished grade; all drainage features and structures; drainage area boundaries and total contributing area for each outfall; direction of flow in each drainage area; industrial activities occurring in each drainage area; buildings; stormwater Best Management Practices (BMPs); and impervious surfaces. The site map must indicate the percentage of each drainage area that is impervious, and the site map must include a graphic scale indication and north arrow.

   (d) A **list of significant spills or leaks** of pollutants during the previous three (3) years and any corrective actions taken to mitigate spill impacts.

(e) Certification that the stormwater outfalls have been evaluated for the presence of non-stormwater discharges. **The permittee shall submit the first certification no later than 90 days after the effective date of this permit to the Stormwater Permitting Program Central Office and shall re-certify annually that the stormwater outfalls have been evaluated for the presence of non-stormwater discharges.** For any non-stormwater discharge identified, the permittee shall indicate how that discharge is permitted or otherwise authorized. The certification statement will be signed in accordance with the requirements found in Part II, Standard Conditions, Section B, Paragraph 11.

2. **Stormwater Management Strategy**. The Stormwater Management Strategy shall contain a narrative description of the materials management practices employed which control or minimize the stormwater exposure of significant materials, including structural and nonstructural measures. This strategy should also address deconstruction, demolition, coal, and/or coal ash hauling or disposal activities where applicable. The Stormwater Management Strategy, at a minimum, shall incorporate the following:

(a) **Feasibility Study**. A review of the technical and economic feasibility of changing the methods of operations and/or storage practices to eliminate or reduce exposure of materials and processes to rainfall and run-on flows. Wherever practical, the permittee shall prevent exposure of all storage areas, material handling operations, and manufacturing or fueling operations. In areas where elimination of exposure is not practical, this review shall document the feasibility of diverting the stormwater run-on away from areas of potential contamination.

(b) **Secondary Containment Requirements and Records**. Secondary containment is required for: bulk storage of liquid materials; storage in any amount of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) water priority chemicals; and storage in any amount of hazardous substances, in order to prevent leaks and spills from contaminating stormwater runoff. A table or summary of all such tanks and stored materials and their associated secondary containment areas shall be maintained. If the secondary containment devices are connected to stormwater conveyance systems, the connection shall be controlled by manually activated valves or other similar devices (which shall be secured closed with a locking mechanism). Any stormwater that accumulates in the containment area shall be observed for color, foam, outfall staining, visible sheens and dry weather flow, prior to release of the accumulated stormwater. Accumulated stormwater shall be released if found to be uncontaminated by any material. Records documenting the individual making the observation, the description of the accumulated stormwater, and the date and time of the release shall be kept for a period of five (5) years. For facilities subject to a federal oil Spill Prevention, Control, and Countermeasure Plan (SPCC), any portion of the SPCC Plan fully compliant with the requirements of this permit may be used to demonstrate compliance with this permit.

In addition to secondary containment for tankage, the permittee shall provide drip pans or other similar protection measures for truck or rail car liquid loading and unloading stations.

(c) **BMP Summary**. A listing of site structural and non-structural Best Management Practices (BMPs) shall be provided. The installation and implementation of BMPs shall be based on the assessment of the potential for sources to contribute significant quantities of pollutants to stormwater discharges and on data collected through monitoring of stormwater discharges. The BMP Summary shall include a written record of the specific rationale for installation and implementation of the selected site BMPs. The BMP Summary should also address deconstruction, demolition, coal, and/or coal ash hauling or disposal activities where applicable. The permittee shall refer to the BMPs described in EPA's Multi-Sector Permit (MSGP) and Industrial Stormwater Fact Sheet for Steam Electric Power Generating Facilities (EPA-833-F-06-030) for guidance on BMPs that may be appropriate for this site. The BMP Summary shall be reviewed and updated annually.

3. **Spill Prevention and Response Procedures**. The Spill Prevention and Response Procedures (SPRP) shall incorporate an assessment of potential pollutant sources based on a materials inventory of the facility. Facility personnel responsible for implementing the SPRP shall be identified in a written list incorporated into the SPRP and signed and dated by each individual acknowledging their responsibilities for the plan. A responsible person shall be on-site at all times during facility operations that have increased potential to contaminate stormwater runoff through spills or exposure of materials associated with the facility operations. The SPRP must be site stormwater specific. Therefore, an oil Spill Prevention Control and Countermeasure plan (SPCC) may be a component of the SPRP, but may not be sufficient to completely address the stormwater aspects of the SPRP. The common elements of the SPCC with the SPRP may be incorporated by reference into the SPRP.

4. **Preventative Maintenance and Good Housekeeping Program**. A preventative maintenance and good housekeeping program shall be developed and implemented. The program shall address all stormwater control systems (if applicable), stormwater discharge outfalls, all on-site and adjacent surface waters and wetlands, industrial activity areas (including material storage areas, material handling areas, disposal areas, process areas, loading and unloading areas, and haul roads), all drainage features and structures, and existing structural BMPs.

   The program shall establish schedules of inspections, maintenance, and housekeeping activities of stormwater control systems, as well as facility equipment, facility areas, and facility systems that present a potential for stormwater exposure or stormwater pollution where not already addressed under another element of the SPPP. Inspection of material handling areas and regular cleaning schedules of these areas shall be incorporated into the program. Compliance with the established schedules for inspections, maintenance, and housekeeping shall be recorded and maintained in the SPPP. The program should also address deconstruction, demolition, coal, and/or coal ash hauling or disposal activities where applicable. The Good Housekeeping Program shall also include, but not be limited to, BMPs to accomplish the following:

   (a) Minimize contamination of stormwater runoff from oil-bearing equipment in switchyard areas;
   (b) Minimize contamination of stormwater runoff from delivery vehicles and rail cars arriving and departing the plant site;
   (c) Inspect all residue-hauling vehicles for proper covering over the load, adequate gate-sealing, and overall integrity of the container body. Repair vehicles as necessary; and
   (d) Reduce or control the tracking of ash and residue from ash loading and storage areas;

5. **Facility Inspections**. Inspections of the facility (including tanks, pipes, and equipment) and all stormwater *systems* shall occur as part of the Preventative Maintenance and Good Housekeeping Program at a minimum on a semi-annual schedule, once during the first half of the year (January to June), and once during the second half (July to December), with at least 60 days separating inspection dates (unless performed more frequently than semi-annually).

6. **Employee Training**. Training programs shall be developed and training provided at a minimum on an annual basis for facility personnel with responsibilities for: spill response and cleanup, preventative maintenance activities, and for any of the facility's operations that have the potential to contaminate stormwater runoff. The facility personnel responsible for implementing the training shall be identified, and their annual training shall be documented by the signature of each employee trained.

7. **Responsible Party**. The SPPP shall identify a specific position or positions responsible for the overall coordination, development, implementation, and revision of the SPPP. Responsibilities for all components of the SPPP shall be documented and position assignments provided.

8. **SPPP Amendment and Annual Update**. The permittee shall amend the SPPP whenever there is a change in design, construction, operation, site drainage, maintenance, or configuration of the physical features which may have a significant effect on the potential for the discharge of pollutants to surface waters. **All aspects of the SPPP shall be reviewed and updated on an annual basis**. The annual update shall include:

   (a) an *updated list of significant spills or leaks* of pollutants for the previous three (3) years, or the notation that no spills have occurred (element of the **Site Overview**);
   (b) a written *re-certification that the stormwater outfalls have been evaluated for the presence of non-stormwater discharge*s (element of the **Site Overview**);
   (c) a documented re-evaluation of the effectiveness of the on-site stormwater BMPs (*BMP Summary* element of the **Stormwater Management Strategy**).
   (d) a *review and comparison of stormwater sample analytical data* to any applicable limits or benchmark values (if applicable) over the past year.

   If the Director notifies the permittee that the SPPP does not meet one or more of the minimum requirements of the permit, the permittee shall have 30 days to respond. Within 30 days of such notice, the permittee shall submit a time schedule to the Director for modifying the SPPP to meet minimum requirements. The permittee shall provide certification in writing to the Director that the changes have been made.

9. **SPPP Implementation**. The permittee shall implement the Stormwater Pollution Prevention Plan and all appropriate BMPs consistent with the provisions of this permit, in order to control contaminants entering surface waters via stormwater. Implementation of the SPPP shall include documentation of all monitoring, measurements, inspections, maintenance activities, and training provided to employees, including the log of the sampling data and of actions taken to implement BMPs associated with the industrial activities, including vehicle maintenance activities. Such documentation shall be kept on-site for a period of five (5) years and made available to the Director or the Director's authorized representative immediately upon request.

A. (28.) 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.
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 thouse 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. During normal operations removing of the free water above the settled wet ash layer shall not involve mechanical disturbance of the ash.

A. (29.) COPPER(Cu), ARSENIC(As), and SELENIUM(Se) COMPLIANCE SCHEDULE (Outfall 008)

1. Nine months from the permit effective date, submit to DEQ an evaluation study plan describing steps to be undertaken to identify the source of Cu, As, and Se at Outfall 008

discharge in order to comply with the limits set forth in section A.(10.) of the permit. The study should consider potential wastewater sources, practices such as vegetation management, and background sources.
2. Eighteen months from the permit effective date, submit a progress report describing the findings of the study. If a source of Cu, As, and Se has been identified, the interim report shall include proposed measures that will be evaluated to treat or eliminate the source of pollutants. If a source of Cu, As, and Se has not been identified, the interim report shall provide additional steps planned or necessary to comply with the limits set forth in section A.(10.) of the permit.
3. Twenty-seven months from the permit effective date submit a progress report. If a source of Cu, As, and Se was identified in the 18-month report, this report should discuss the success of the efforts to treat or eliminate sources of Cu, As, and Se. If a source of Cu, As, and Se has not been identified, the interim report shall provide additional steps planned or necessary to comply with the limits set forth in section A.(10.) of the permit.
4. Thirty-six months from the permit effective date the discharge shall be in compliance with the Cu, As, and Se limitations.

A. (30.) COPPER (Cu) and NICKEL (Ni) COMPLIANCE SCHEDULE (Outfall 001)

1. Nine months from the permit effective date, submit to DEQ an evaluation study plan describing steps to be undertaken to identify the source of Cu and Ni at Outfall 001 in order to comply with the limits set forth in sections A.(1.) or A.(2.) of the permit. The study should consider potential wastewater sources, practices such as vegetation management, and background sources.
2. Eighteen months from the permit effective date, submit a progress report describing the findings of the study. If a source of Cu and Ni has been identified, the interim report shall include proposed measures that will be evaluated to treat or eliminate the source of the pollutants. If a source of Cu and Ni is not identified, the interim report shall provide additional steps planned or necessary to comply with the limits set forth in sections A.(1.) or A. (2.) of the permit.
3. Twenty-seven months from the permit effective date submit a progress report. If a source of Cu and Ni was identified in the 18-month report, this report should discuss the success of the efforts to treat or eliminate sources of the pollutants. If a source of Cu and Ni has not been identified, the interim report shall provide additional steps planned or necessary to comply with the limits set forth in sections A.(1.) or A.(2.) of the permit.
4. Thirty-six months from the permit effective date the discharge shall be in compliance with the Cu and Ni limitations.

A. (31.) COMPLIANCE BOUNDARY

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.