# DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES FACT SHEET FOR NPDES PERMIT DEVELOPMENT

NPDES No. NC0005088

Facility Information					
Applicant/Facility	Duke Energy Carolinas, LLC / Rogers Energy Complex				
Applicant Address:	410 S Wilmington St, NCR	H 14, Raleigh, NC 2	7601		
Facility Address:	573 Duke Power Road, Mo	oresboro, NC 28024	Į.		
Permitted Flow (MGD):	Not limited				
Type of Waste:	Industrial & domestic				
Facility Classification:	II				
Permit Status:	Renewal				
County:	Rutherford				
	Miscellaneou	s			
Receiving Stream:	Broad River/Suck Creek State Grid: 0		G11NE		
Stream Classification:	WS-IV	USGS Quad:	Chesnee		
Drainage Area (mi²):	849 - Broad River 13.2 - Suck Creek	Basin/Subbasin:	Broad/03-08-02		
Summer 7Q10 (cfs)	287 Broad River 3.6 Suck Creek	303(d) Listed?	No		
Winter 7Q10 (cfs):	440 Broad River	HUC:	03050105		
30Q2 (cfs)	635 Broad River 8.3 Suck Creek	Regional Office:	Asheville		
Average Flow (cfs):	1460 Broad River Permit Writer: Teresa Roo 19 Suck Creek		Teresa Rodriguez		
IWC (%):	7.7 (002) 3.1 (005)	Date:	9/13/2016		

#### **SUMMARY**

Duke Energy Carolinas operates the Rogers Energy Complex (REC); formerly known as Cliffside Steam Station; a two-unit coal fired steam electric generating facility. Units 1-4 have been removed from service. The station now operates only two units; Units 5 and 6. The total combined output is 1500 megawatts. Each unit has a Flue Gas Desulfurization (FGD) system. The site has an industrial landfill for combustion byproducts where fly ash, bottom ash, gypsum and WWTP sludge is deposited.

Water for cooling is withdrawn from the Broad River. Both units use cooling towers for heat dissipation. Blowdown from Unit 5 is discharged to the ash basin. Blowdown from Unit 6 can be used in the unit's make up water or discharged to the ash basin.

Receiving waters are the Broad River and Suck Creek, class WS-IV waters in the Broad River Basin. Previous permits had this section classified as C. The correct classification is WS-IV and it will be

modified in the permit. Flow statistics for Suck Creek were provided by the USGS on September 9, 2016.

REC is subject to EPA effluent guideline limits per 40 CFR 423 - Steam Electric Power Generating Point Source Category as amended November 3, 2015. The facility is also subject to the Cooling Water Intake Structures Rules (40 CFR 125) effective October 14, 2014 and to the North Carolina Senate Bill 729 - Coal Ash Management Act.

# Outfall Descriptions:

#### Outfall 002 - Ash basin

The ash basin receives wastewaters collected in the Yard Drainage Basin (effluent from the domestic WWTP, cooling tower blowdown from Unit 5, landfill leachate, floor drains, treated FGD wet scrubber water, limestone unloading and storage area, and stormwater), sluiced ash, cooling tower blowdown from Unit 6, equipment backwashes, boiler blowdown, drainage from recirculating cooling systems, demineralizing resin, cooling water from heat exchangers, rinse water from limestone unloading and storage area, stormwater, and miscellaneous waste streams. This outfall discharges to the Broad River.

#### Outfall 002A - Emergency Yard Drainage Overflow

This outfall was closed in 2016. This was an emergency outfall from the yard drainage basin.

#### Internal Outfall 004 - FGD

If the wastewater from the FGD system is not used in Unit 6 it is treated in the FGD WWTS which consists of equalization tank, reaction tank, flocculating clarifier, and gravity filters. The effluent is discharged to the Yard Drainage Basin.

#### Proposed Outfalls:

### Outfall 005 - New Wastewater Treatment System

A new treatment system will be installed to treat wastewaters from the FGD Wastewater Treatment System discharge and heat exchanger effluent, landfill leachate, holding basin discharge, low volume waste, cooling tower blowdown from units 5 and 6, wastewater from underboiler mechanical drag system, treated sanitary wastewater, water pumped from holding cell, unit 5 yard sump, unit 5 process sump, unit 6 process water, auxiliary basin discharge, and cooling water from Unit 6 FGD system. The treatment system will be a physical/chemical treatment system with flow equalization, pH neutralization, coagulation and flocculation, and filters. This outfall will discharge to the Broad River.

#### Outfall 002B

This will be an emergency outfall from a new wastewater holding cell if a significant rain event overflows the system. An existing structure will be used as a holding cell for process wastewater, treated sanitary wastewater and stormwater that currently go to the P-5 yard basin. The effluent from this holding cell will be pumped to the ash basin during normal operations. When the new WWTS starts operations the holding cell will receive stormwater runoff and Reverse osmosis reject wastewater. Effluent will be pumped to the new WWTS. An auxiliary basin will hold excess water during storm events. The emergency outfall will discharge to the Broad River.

#### Outfall 002C

This will be an emergency outfall from a new holding basin if a significant rain event overflows the system. This holding basin will receive stormwater runoff from coal yard, gypsum and limestone storage areas and flows from the holding cell auxiliary basin. The effluent from this holding basin will be pumped to the new WWTS. The emergency overflow will discharge to the Broad River.

# Seeps

The facility identified 21 unpermitted seeps (all non-engineered). The seeps are located around the ash settling ponds.

#### COMPLIANCE REVIEW/PROPOSED ACTIONS

# Outfall 002 - Ash Basin - Decanting/Normal Operations

This outfall is subject to the Effluent Limitations Guidelines (ELG) in Table 1.

Table 1. ELG Outfall 002 (Prior to November 1, 2018)

Pollutant	Daily Maximum (DM)	Monthly Average (MA)	ELG
TSS	50 mg/1	30 mg/1	40 CFR 423(b)(4) (monthly average)
			423(b) (9) (daily max)
Oil & Grease	20 mg/1	15 mg/l	40 CFR 423.12 (b) (4)
рН	6 to 9 SU		40 CFR 423.12 (b) (1)

After November 1, 2018 no discharge of fly ash or bottom ash transport water is allowed as per 40 CFR 423.13 (k) (1) (i). Compliance with this section shall be as soon as possible but no later than December 31, 2023. Duke has submitted the following proposed schedule for meeting the rule: Bottom ash: December 31, 2020

Fly ash: November 1, 2018

#### DMR review:

DMR data were review for the period of January 2011 to April 2016. There were no violations of permit limits.

Table 2. DMR Summary Outfall 002

Parameter	Average	Maximum	Minimum
Flow (MGD)	6.753	29.8	0.40
TSS (mg/l)	6.8	18	< 5
Temperature °F	66.4	88.3	45.5
O & G (mg/l)	< 5	< 5	<b>&lt;</b> 5
Total Nitrogen (mg/l)	0.93	1.5	0.54
Total Phosphorus	0.09	0.19	0.01
(mg/l)			
pH (S.U.)	7.4	8.6	6.1

#### RPA Outfall 002:

The need for toxicant limits is based upon a demonstration of reasonable potential to exceed water quality standards, a statistical evaluation that is conducted during every permit renewal utilizing the most recent effluent data for each outfall. The RPA is conducted in accordance with 40 CFR 122.44 (d) (i). The NC RPA procedure utilizes the following: 1) 95% Confidence Level/95% Probability; 2) assumption of zero background; 3) use of ½ detection limit for "less than" values; and 4) streamflows used for dilution consideration based on 15A NCAC 2B.0206. Effective April 6, 2016, NC began implementation of dissolved metals criteria in the RPA process in accordance with guidance titled *NPDES Implementation of Instream Dissolved Metals Standards*, dated June 10, 2016.

The current permit included monitoring for various metals to evaluate the impact from FGD wastewaters. A reasonable potential analysis was performed for arsenic, cadmium, chromium, nickel, selenium, silver, and zinc. A reasonable potential analysis was conducted on effluent toxicant data collected between January 2011 and May 2016. Pollutants of concern for the decant wastewater included toxicants with positive detections and associated water quality standards/criteria. Based on this analysis, the following permitting actions are proposed for this permit:

- <u>Effluent Limit with Monitoring</u>. The following parameters will receive a water quality-based effluent limit (WQBEL) since they demonstrated a reasonable potential to exceed applicable water quality standards/criteria: total thallium.
- <u>Monitoring Only</u>. The following parameters will receive a monitor-only requirement since they did not demonstrate reasonable potential to exceed applicable water quality standards/criteria, but the maximum predicted concentration was >50% of the allowable concentration: total cadmium, total selenium.
- <u>No Limit or Monitoring</u>: The following parameters will not receive a limit or monitoring, since they did not demonstrate reasonable potential to exceed applicable water quality standards/criteria and the maximum predicted concentration was <50% of the allowable concentration: chlorides, total fluoride, total lead, total molybdenum, total nickel, total antimony, barium and sulfates.
- Summary of new limits added based on RPA: total thallium.
- Summary of existing limits deleted based on RPA: none.

# **TOXICITY TESTING:**

Current Requirement: Outfall 002 – Chronic P/F @ 7.14% using Ceriodaphnia Recommended Requirement: Outfall 002 – Chronic P/F @ 7.7% using Ceriodaphnia Instream waste concentration is based on the maximum monthly flow during the previous permit cycle.

This facility has passed 21 out of 21 toxicity tests during previous permit cycle.

### Mercury Evaluation:

Table 3. Mercury Data Evaluation

	2011	2012	2013	2014	2015
# of Samples	18	12	12	13	12
Annual Average, ng/L	3.1	1.8	1.7	1.5	1.1
Maximum Value, ng/L	11.30	3.50	3.10	3.90	2.30
TBEL, ng/L	47				
WQBEL, ng/L	159.1				

Annual averages are below the TBEL and WQBEL, no limit is required for mercury.

Table 4. Monitoring Requirements/Proposed Changes Outfall 002

	Monitoring Character Requirements/Proposed Changes Outlan 002			
Parameter	requirements	Changes	Basis	
Flow	Monitor	No changes	15A NCAC 2B.0505	
TSS	30 mg/1 MA	Daily maximum	MA - 40 CFR 423.12(b)(4)	
	100 mg/1 DM	for TSS changed	DM - 40 CFR 423 (b) (9) coal pile runoff	
		to 50 mg/L	is discharged through this outfall	
Oil & Grease	15 mg/l MA	No changes	40 CFR 423.12(b)(4)	
	20 mg/1 DM			
Total iron	1 mg/l MA	No changes	40 CFR 423.12(b)(3)	
	1 mg/1 DM		Only monitored during discharge of	
	_		metal cleaning wastes	
Total cooper	1 mg/l MA	101 μg/1 MA	State WQ standards, 15A NCAC 2B .0200.	
•	1 mg/l DM	111 μg/1 DM	Only monitored during discharge of	
	0.		metal cleaning wastes.	
			Water quality limits more stringent	
			than ELG.	
Total chromium	Monitoring	0.2 μg/L MA	40 CFR 423.13 (d)(1)	
	_	0.2 μg/L DM		
Total zinc	Monitoring	1.0 μg/L MA	40 CFR 423.13 (d)(1)	
	_	1.0 μg/L DM		
Total nickel,	Monitor weekly	Eliminate	Previous permit had monitoring to	
total silver	-	monitoring	evaluate impact from FGD. There is no	
			ELG for these parameters and no	
			reasonable potential to exceed wqs.	
Total cadmium	Monitor weekly	Monitor Monthly	Maximum predicted concentration	
	-		greater than 50% of the allowable	
Total Selenium,	Monitor	No changes	Pollutant of concern for ash.	
Total Arsenic,	monthly			
Total Mercury	,			
Total Thallium	No requirement	3.1 μg/1 MA	Reasonable potential to exceed EPA	
	-	3.1 μg/1 DM	Water quality criteria.	
Total Hardness	No requirement	Quarterly	Collect data for RPA	
	1	monitoring		
BOD5	No requirement	30 mg/L MA	Outfall discharges treated domestic	
	•	45 mg/L DM	wastes	
Fecal Coliform	No requirement	200/100 mL MA	Outfall discharges treated domestic	
	•	400/100 mL DM	wastes	
Total Nitrogen	Quarterly	No changes	15A NCAC 2B .0500	
Total	Monitoring			
Phosphorus				
рН	6 to 9 SU	No changes	State WQ standards, 15A NCAC 2B .0200	

### Outfall 002 - Ash Basin Dewatering

To meet the requirements of the Coal Ash Management Act of 2014, the facility needs to dewater the ash pond by removing the interstitial water and excavate the ash to deposit it in landfills. The facility's highest discharge rate from the dewatering process will be 1 MGD. The facility submitted data for the standing surface water in the ash pond, interstitial water in the ash, and interstitial ash water that was treated by filters of various sizes. To introduce a margin of safety the highest measured concentration of a parameter was used.

Based on this analysis, the following permitting actions are proposed for the dewatering phase:

- Monitoring Only. The following parameters will receive a monitor-only requirement since they did not demonstrate reasonable potential to exceed applicable water quality standards/criteria, but the maximum predicted concentration was >50% of the allowable concentration: total lead, total molybdenum, and total thallium.
- No Limit or Monitoring: The following parameters will not receive a limit or monitoring, since they did not demonstrate reasonable potential to exceed applicable water quality standards/criteria and the maximum predicted concentration was <50% of the allowable concentration: total arsenic, chlorides, total cadmium, total fluoride, total nickel, total selenium, total antimony, barium and sulfates.

Monitoring requirements for Outfall 002 - Ash Pond Dewatering are the same as Table 4 with the addition of lead and molybdenum and sampling at an increased frequency of weekly.

### Internal Outfall 004 - FGD

This outfall is subject to the ELG in Table 5. These are new limitations promulgated November 3, 2015. The permittee has to meet the limitations as soon as possible beginning November 1, 2018 but no later than December 31, 2023.

Table 5. ELG Outfall 004

Pollutant	Daily Maximum	Monthly	ELG
		Average	
рН	6 to 9	SU	40 CFR 423.12 (b) (1)
TSS	100 mg/l	30 mg/l	40 CFR 423.12 (b) (11)
Oil and grease	20 mg/1	15 mg/l	40 CFR 423.12 (b) (11)
Total Arsenic	11 μg/l	8 μg/1	40 CFR 423.13 (g) (1) (i)
Total Mercury	788 ng/l	356 ng/l	40 CFR 423.13 (g) (1) (i)
Total Selenium	23 μg/1	12 μg/l	40 CFR 423.13 (g) (1) (i)
Nitrate/nitrite	17 mg/l	4.4 mg/l	40 CFR 423.13 (g) (1) (i)

# **Schedule of Compliance for new ELG:**

The new rule establishes compliance dates for the new limitations. Permittee must meet limits as soon as possible beginning on November 1, 2018 but no later than December 31, 2023. Duke requested a compliance schedule to evaluate, install and test a new treatment system with a proposed compliance date of December 31, 2023. The permit will require compliance by this date.

Table 6. Monitoring Requirements/Proposed Changes Outfall 004

Parameter	Monitoring requirements	Changes	Basis
Flow	Monitor	No changes	15A NCAC 2B.0505
TSS	Monitor	Limits of 30 mg/l (MA) and 100 mg/l (DM)	40 CFR 423.13 (b) (11)
Oil and grease	No Monitor	Limits of 15 mg/l (MA) and 20 mg/l (DM)	40 CFR 423.13 (b) (11)
Total Arsenic	Monitor	Add limits of 11 µg/l daily maximum and 8 µg/l monthly average	40 CFR 423.13 (g) (1) (i)
Total Cadmium	Monitor	Remove monitoring	Internal outfall, not a parameter of concern.
Total Chromium	Monitor	Remove monitoring	Internal outfall, not a parameter of concern.
Chloride	Monitor	Remove monitoring	Internal outfall, not a parameter of concern.
Total Mercury	Monitor	Add limits of 788 ng/l daily maximum and 356 ng/l monthly average.	40 CFR 423.13 (g) (1) (i)
Total Nickel	Monitor	Remove monitoring	Internal outfall, not a parameter of concern.
Total Selenium	Monitor	Add limits of 23 µg/l daily maximum and 12 µg/l monthly average	40 CFR 423.13 (g) (1) (i)
Total Silver	Monitor	Remove monitoring	Internal outfall, not a parameter of concern.
Total Zinc	Monitor	Remove monitoring	Internal outfall, not a parameter of concern.
Nitrate/Nitrite	No monitoring	Add limits of 17 mg/l daily maximum and 4.4 mg/l monthly average	40 CFR 423.13 (g) (1) (i)

# **Proposed Outfalls:**

# Outfall 005 - New Wastewater Treatment System (WWTS)

This new outfall will discharge treated process wastewaters from the plant including low volume wastes and cooling tower blowdown. Duke will consider the option of treating the decanting and dewatering of the ash pond through this treatment system. Proposed limits and monitoring requirements are described in Table 7.

Table 7. Monitoring Requirements/Proposed Changes Outfall 005

Parameter	Limits/Monitoring	Pagin	
Parameter	requirements	Basis	
Flow	Monitor	15A NCAC 2B.0505	
TSS	30 mg/L MA	MA - 40 CFR 423.12(b)(4)	
	50 mg/L DM	DM - 40 CFR 423 (b) (9) coal pile runoff is	
		discharged through this outfall	
Oil & Grease	15 mg/L MA	40 CFR 423.12(b)(4)	
	20 mg/L DM		
Total iron	1 mg/L MA	Parameter only monitored during discharge	
	1 mg/L DM	of metal cleaning wastes	
Total cooper	251 μg/L MA	State WQ standards, 15A NCAC 2B .0200.	
	272 μg/L DM	Parameters only monitored during	
		discharge of metal cleaning wastes.	
Total Chromium	0.2 μg/L MA	40 CFR 423.13 (d)(1)	
	0.2 μg/L DM	(-)(-)	
Total Zinc	1.0 μg/L MA	40 CFR 423.13 (d)(1)	
	1.0 μg/L DM	( )( )	
Total Hardness	Quarterly	Collect data for RPA	
	Monitoring		
Total Nitrogen	Quarterly	15A NCAC 2B .0500	
Total	Monitoring		
Phosphorus			
рН	6 to 9 SU	State WQ standards, 15A NCAC 2B .0200	
BOD5	30 mg/L MA	Outfall discharges treated domestic wastes	
	45 mg/L DM		
Fecal Coliform	200/100 mL MA	Outfall discharges treated domestic wastes	
	400/100 mL DM		
TRC	28 μg/L DM	State WQ standards, 15A NCAC 2B .0200	
Temperature	32°C at edge of	Approved mixing zone for temperature	
	mixing zone		
Whole Effluent	J	State WQ standards, 15A NCAC 2B .0200	
Toxicity	at 3.14%		
Selenium,	Monitor	Only applicable if the decanting and dewatering	
cadmium,		is treated through the WWTS	
mercury, arsenic			
Total thallium	3.1 μg/L DM	Only applicable if the decanting and dewatering	
	3.1 μg/L MA	is treated through the WWTS	

# Seeps outfalls:

The facility identified 35 seeps in areas surrounding the active and inactive ash basins. 14 of the seeps do not need coverage under the permit based on the low concentration of the constituents associated with coal ash and/or absence of a discharge to "Waters of the State". These seeps are not considered point-source wastewater discharges under the Clean Water Act. An effluent channel determination was completed by the Division on August 23, 2016. The seeps listed on Table 8 were identified as effluent channels. Outfalls 102, 103, 104, 106, 110, 111, 113 and 017 discharge to the

Broad River. Seeps 18, 19 and 19a are tributary to Outfall 102. Outfalls 114, 115, 116, 121, 127, 128, 129, 130, 131, and 132 discharge to Suck Creek.

Table 8. Seep Coordinates and Assigned Outfall Numbers

Seep ID	Latitude	Longitude	Outfall number
S-2	35.217	-81.768	102
S-3	35.220	-81.758	103
S-4	35.218	-81.753	104
S-6	35.218	-81.748	106
S-10	35.220	-81.757	110
S-11	35.219	-81.756	111
S-13	35.218	-81.750	113
S-14	35.214	-81.756	114
S-15	35.214	-81.756	115
S-16	35.214	-81.756	116
S-17	35.217	-81.769	117
S-18	35.216	-81.768	102
S-19	35.216	-81.768	102
S-19a	35.216	-81.769	102
S-21	35.214	-81.755	121
S-27	35.21383	-81.756478	127
S-28	35.211677	-81.753876	128
S-29	35.211542	-81.753993	129
S-30	35.211496	-81.75391	130
S-31	35.211482	-81.753887	131
S-32	35.211258	-81.753646	132

Within 180 days of the effective date of this permit, the permittee shall demonstrate, through instream sampling meeting the requirements of condition A. (30.), 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 of the permit. 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 the seep outfalls Effluent Limitations and Monitoring Requirement condition as listed in special condition A. (7).

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 standards is exceeded) to pump the seep discharge to one of the existing outfalls, install a pipe to discharge the seep to the Broad River or Suck Creek, 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.

# New Identified Seeps

If new seeps are identified, the facility shall follow the procedures outlined above. The deadlines for new seeps shall be calculated from the date of the seep discovery. The new identified seep are not permitted until the permit is modified and the new seep included in the permit and the new outfall established for the seep.

#### RPA Seeps

A RPA was conducted for seeps. The flow used for the Broad River RPA was 6.0 MGD which is the total measured flow of all the seeps discharging to the Broad River multiplied by a safety factor of 10. The flow used for Suck Creek RPA was 0.04 MGD which is the measured flows multiplied by a safety factor of 10. RPA was conducted for total arsenic, cadmium, chlorides, total chromium, total copper, total lead, total mercury, total molybdenum, total nickel, selenium, total zinc, antimony, sulfate and total thallium. As a result of the RPA limits are required for the following parameters/outfalls:

- Outfall 102: limits for sulfates.
- Outfalls 114, 115, 116, 121: limits for total copper, total lead, and total thallium.
- Outfall 107: limits for total lead.

In addition to the limits described above all the seep outfalls will have monitoring requirements for fluoride, total mercury, total barium, total iron, total manganese, total zinc, total arsenic, total cadmium, total chromium, total copper, total lead, total nickel, and total selenium, and limits as described in Table 9.

Table 9. Monitoring Requirements Proposed Seep Outfalls Monitoring:

Parameter	Limits/Monitoring requirements	Basis
Flow	Monitor	15A NCAC 2B.0505
рН	6 to 9 S.U.	State WQ standards, 15A NCAC 2B .0200
TSS	30 mg/l MA	40 CFR 423.12(b)(4)
	100 mg/1 DM	
Oil & Grease	15 mg/l MA	40 CFR 423.12(b)(4)
	20 mg/1 DM	
Nitrate/nitrite, TDS, hardness,	Monitor	Parameters of concern
conductivity and temperature.		

#### 316(b) REQUIREMENTS

The permittee shall comply with the Cooling Water Intake Structure Rule per 40 CFR 125.95. The Division approved the facility request for an alternative schedule in accordance with 40 CFR 125.95(a)(2). The permittee shall submit all the materials required by the Rule with the next renewal application.

#### 316 (a) CWA

The thermal variance once included in the permit is no longer necessary. The special condition referring to the variance was eliminated. The facility has an approved mixing zone for temperature which will be maintained in the permit.

#### FISH TISSUE STUDIES

The facility performed fish tissue analysis for arsenic, selenium and mercury as required by the permit. The Division reviewed the information and concluded that all the fish tissue levels reported are below the Department of Health screening values.

### INSTREAM MONITORING

The current permit did not require instream monitoring. The proposed permit will require upstream and downstream semi-annual monitoring for total arsenic, total selenium, total mercury (method 1631E), total chromium, total lead, total cadmium, total copper, total hardness, and total zinc.

#### SUMMARY OF PROPOSED CHANGES

- 1. Eliminated outfall 002A since it has been shut down.
- 2. A separate effluent page for the dewatering of the ash ponds (Outfall 002) was added to the permit. Please see Special Condition A. (2)
- 3. Special Condition A. (44) Section 316(b) of CWA was updated to reflect the new regulations.
- 4. Special Condition A. (8) Section 316(a) Thermal Variance in the old permit was eliminated since the facility no longer requires a thermal variance.
- 5. Special Condition A. (29) Ash Pond Closure was added to the permit to facilitate the decommissioning of the ash ponds.
- 6. Special Condition A. (30) Instream Monitoring was added to the permit to monitor the impact of the discharges on the receiving stream.
- 7. Special Condition A. (45) Applicable State Law was added to the permit to meet the requirements of Senate Bill 729 (Coal Ash Management Act).
- 8. Special Condition A. (43) Domestic Wastewater Treatment Plant was added to the permit to assure compliance with the 40 CFR 133.102.
- 9. Special Condition A. (50) Electronic Reporting was added to the permit describing requirements for electronic reporting of DMRs. Starting December 21, 2016, federal regulations require electronic submittal of all discharge monitoring reports (DMRs) and specify that, if a state does not establish a system to receive such submittals, then permittees must submit DMRs electronically to the Environmental Protection Agency (EPA).
- 10. Special Condition A. (51) Notification of Start-up Outfall 005 was added to the permit.

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