BACKGROUND

Duke Energy’s Belews Creek Steam Station is a coal fired steam electric plant in Stokes County. The facility is subject to the federal effluent guidelines 40 CFR Part 423. The facility has three permitted outfalls in the current NPDES discharge permit. The sources of wastewater for these outfalls include non-contact cooling water, ash basin discharge, sanitary waste, cleansing and polishing water, low volume wastes, and stormwater from process areas.

In addition to NPDES Permit NC0024406, the facility also holds the following permits: 01983R12 (air permit), NCD000856591 (Hazardous wastes), 85-03 (industrial landfill), and WQ0005873 (spray irrigation permit).

The facility operates the following outfalls:

- Outfall 001: once through cooling water consisting of intake screen backwash, recirculating cooling water, station equipment cooling water and once-through cooling water
- Outfall 003: ash basin discharge consisting of waste streams from the power house and yard holding sumps, ash sluice lines, chemical holding pond, coal yard sumps, stormwater, coal pile collection basins (collecting contact stormwater from coal piles), remediated groundwater, emergency release of

DEQ/DWR
FACT SHEET FOR NPDES PERMIT DEVELOPMENT
NPDES No. NC0024406

<table>
<thead>
<tr>
<th>Facility Information</th>
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<tbody>
<tr>
<td>Applicant/Facility Name: Duke Energy Carolinas, LLC- Belews Creek Steam Station</td>
</tr>
<tr>
<td>Applicant Address: 13339 Hagers Ferry Road; Huntersville, North Carolina 28078</td>
</tr>
<tr>
<td>Facility Address: 3195 Pine Hall Road; Belews Creek, NC 27009</td>
</tr>
<tr>
<td>Permitted Flow: N/A</td>
</tr>
<tr>
<td>Type of Waste: Industrial (~100%); Domestic (&lt;1%)</td>
</tr>
<tr>
<td>Prim.SIC Code: 4911</td>
</tr>
<tr>
<td>Facility/Permit Status: Class I /Active; Renewal</td>
</tr>
<tr>
<td>County: Stokes County</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Miscellaneous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiving Stream: Belews Lake (001) and Dan River (003)</td>
</tr>
<tr>
<td>Regional Office: Winston-Salem (WSRO)</td>
</tr>
<tr>
<td>Stream Classification: C (Belews Lake), WS-IV (Dan River)</td>
</tr>
<tr>
<td>State Grid / USGS Quad: B18SE/Belews Lake</td>
</tr>
<tr>
<td>303(d) Listed?: No</td>
</tr>
<tr>
<td>Permit Writer: Sergei Chernikov, Ph.D.</td>
</tr>
<tr>
<td>Subbasin: 03-02-01</td>
</tr>
<tr>
<td>Date: 09/09/2016</td>
</tr>
<tr>
<td>Drainage Area (mi²): 501 (Dan River)</td>
</tr>
<tr>
<td>Summer 7Q10 (cfs): 80 (Dan River)</td>
</tr>
<tr>
<td>Winter 7Q10 (cfs): 160 (Dan River)</td>
</tr>
<tr>
<td>30Q2 (cfs): 195 (Dan River)</td>
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<tr>
<td>Average Flow (cfs): 576 (Dan River)</td>
</tr>
<tr>
<td>IWC (%): 26.5</td>
</tr>
</tbody>
</table>

001: Lat. 36°16' 49.5" N Long. 80° 03' 39.8" W
002: Lat. 36°18' 22.0" N Long. 80° 04' 50.7" W
anhydrous ammonia, seepage from coal ash basin, emergency overflow from the retention basin, emergency overflows from the existing effluent channels, and treated FGD wastewater from internal outfall 002. The wastewater from this outfall discharges to Dan River.

- Internal outfall 002: FGD wastewater (discharging to ash pond)
- Outfall 003A. Upon completion of construction, discharge from the new lined retention basin. Basin will accept wastes from holding basin, various sumps, coal pile runoff, stormwater runoff, cooling tower blowdown, FGD wastewater, and various low volume wastes such as boiler blowdown, coal pile collection basins (collecting contact stormwater from coal piles), oily waste treatment, wastes/backwash from the water treatment processes, plant area wash down water, cooling tower blowdown, equipment heat exchanger water, remediating groundwater, treated domestic wastewater, emergency release of anhydrous ammonia, and emergency overflow (rain in excess of designed storm event). The wastewater from this outfall discharges to Dan River.
- Outfall 005. This is a former stormwater outfall SW002, consists of once through non-contact chiller water and stormwater. The wastewater from this outfall discharges to Belews Lake.
- Seep Outfalls 106 (S-12 commingles with S-6), 107, 108, 109, 114 (S-13 commingles with S-14) - 5 potentially contaminated seeps. These seeps discharge to Belews Lake (S-7 discharges to Charlie’s Pond, which is a tributary to Belews Lake).
- Seep Outfalls 102, 115 (S-10 and S-11 commingles with S-15) - 2 potentially contaminated seeps. These seeps discharge to Dan River. S-11 is a newly combined toe drain that commingles with Outfall 115.

**SEEPS - OUTFALLS 102, 106, 107, 108, 109, 114, AND 115.**

**Existing Discharges from Seepage**

The facility identified 11 unpermitted seeps from the ash settling basin. However, 4 of the seeps (S-1, S-3, S-4, and S-5) do not need coverage under the permit based on the low concentration of the constituents associated with the coal ash and/or absence of the discharge to the “Waters of the State”. The concentration of B, Se, and As for these seeps are below detection level. These seeps are not considered point-source wastewater discharges under the Clean Water Act. A number of the previously identified areas of wetness have been consolidated into a combined toe drain identified as S-11, this consolidation was part of an engineered weighted filter overlay project. The locations of the permitted seeps are identified below and are depicted on the map attached to the permit.

**Table 1. Discharge Coordinates and Assigned Outfall Numbers**

<table>
<thead>
<tr>
<th>Discharge ID</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Outfall number</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-2</td>
<td>36.297</td>
<td>-80.085</td>
<td>102</td>
</tr>
<tr>
<td>S-6</td>
<td>36.296</td>
<td>-80.061</td>
<td>106</td>
</tr>
<tr>
<td>S-7</td>
<td>36.287</td>
<td>-80.064</td>
<td>107</td>
</tr>
<tr>
<td>S-8</td>
<td>36.280</td>
<td>-80.078</td>
<td>108</td>
</tr>
<tr>
<td>S-9</td>
<td>36.280</td>
<td>-80.078</td>
<td>109</td>
</tr>
<tr>
<td>S-14</td>
<td>36.2922081</td>
<td>-80.06241146</td>
<td>114</td>
</tr>
<tr>
<td>S-15</td>
<td>36.299270</td>
<td>-80.075356</td>
<td>115</td>
</tr>
</tbody>
</table>

The outfall for these discharges is through an effluent channel meeting the requirements in 15A NCAC 2B .0228 with an exception of S-2, S-6, and S-15. The effluent channel requirements for seeps S-2, S-6, and S-15 are not met due to the previous Jurisdictional Determinations or presence of side streams. Therefore, for these seeps (S-2, S-6, and S-15) the facility shall, within 90 days of the effective date
of the permit, determine if the discharge seep meets the state water quality standards established in 15A NCAC 2B .0200 and submit the results of this determination to the Division. If the standards are not contravened, the facility shall conduct monitoring for the parameters specified in A. (26.).

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

Within 180 days of the effective date of this permit, the permittee shall demonstrate, through in-stream sampling meeting the requirements of condition A. (27.), that the water quality standards in the receiving stream are not contravened.

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

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

1) Submit a complete application for 404 Permit (within 30 days after determining that a water quality standard is exceeded) to pump the seep discharge to one of the existing outfalls, install a pipe to discharge the seep to the Belews Lake/Dan River, or install an in-situ treatment system. After the 404 Permit is obtained, the facility shall complete the installation of the pump, pipe, or treatment system within 180 days from the date of the 404 permit receipt and begin pumping/discharging or treatment.

2) Demonstrate through modeling that the decanting and dewatering of the ash basin will result in the elimination of the seep. The modeling results shall be submitted to the Division within 120 days from the date of the seep discovery. Within 180 days from the completion of the dewatering the facility shall confirm that the seep flow ceased. If the seep flow continues, the facility shall choose one of the other options in this Special Condition.

3) Demonstrate that the seep is discharging through the designated “Effluent Channel” and the water quality standards in the receiving stream are not contravened. This demonstration should be submitted to the Division no later than 180 days from the date of the seep discovery. The “Effluent Channel” designation should be established by the DEQ Regional Office personnel prior to the issuance of the permit. This permit shall be reopened for cause to include the “Effluent Channel” in a revised permit.

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

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 is not permitted until the permit is modified and the new seep included in the permit and the new outfall established for the seep.
ASH POND DAMS
Seepage through earthen dams is common and is an expected consequence of impounding water with an earthen embankment. Even the tightest, best-compacted clays cannot prevent some water from seeping through them. Seepage is not necessarily an indication that a dam has structural problems, but should be kept in check through various engineering controls and regularly monitored for changes in quantity or quality which, over time, may result in dam failure.

FGD TREATMENT
Currently the facility uses the following treatment train for FGD wastewater
1) addition of lime, ferric chloride, and polymer in the multiple reaction tanks
2) 2 clarifiers
3) 3 filters
4) 8 first stage bioreactors
5) 8 second-stage bioreactors

However, this treatment is insufficient to consistently meet the new FGD limits for selenium. For example, on 01/29/2015 and on 02/25/2015 the selenium concentration in the wastewater discharged from Outfall 002 was 32.2 µg/L and 37.9 µg/L, respectively. This is substantially higher than the 23 µg/L, which is a selenium limit in a newly promulgated effluent guideline. Therefore, Duke is proposing to install an additional membrane ultrafiltration treatment. Installation and optimization of this system would require time, it has been determined that November 1, 2019 is an appropriate effective date for complying with the new FGD limits.

EPA has reviewed the proposed technology and compliance schedule and determined that “assuming certain additional requirements recommended below by the EPA for additional testing and technology transfer are included in the final permit, establishing November 1, 2019 as the effective date for implementing the new BAT effluent limitations is appropriate given Duke Energy’s commitment to install a combination of wastewater treatment technology more advanced than the technology used as the basis for the BAT limits. Establishing effluent limitations “beyond BAT” is a unique situation and can be a factor for determining the date that BAT effluent limitations apply for a facility, consistent with Title 40 of the U.S. Code of Federal Regulations (CFR) Part 423.11(t)(4).

It is important to emphasize that Duke Energy’s proposed combination of treatment technology (adding membrane ultrafiltration to the existing chemical precipitation and biological treatment system) is more advanced treatment than the BAT technology basis for the ELGs (chemical precipitation and biological treatment). This treatment has the potential to remove significant amounts of the arsenic, mercury and selenium that remains following BAT-level treatment. Such would not be the case if a facility were to propose adding less effective technology (such as sand filtration, which is already part of the BAT technology basis) to the BAT technology. Furthermore, this facility will be the first full-scale implementation of membrane ultrafiltration for treating FGD wastewater. EPA recognizes that making pollutant removal performance data widely available by including reporting requirements in the permit may promote more widespread implementation of such technology at other power plants. Therefore, providing Duke Energy incentive to install the ultrafiltration technology and sufficient time to fully integrate and optimize its operation as part of the entire treatment system is appropriate.”

REASONABLE POTENTIAL ANALYSIS(RPA)-ASH POND AND SEEPS
The Division conducted EPA-recommended analyses to determine the reasonable
potential for toxicants to be discharged at levels exceeding water quality standards/EPA criteria by this facility. For the purposes of the RPA, the background concentrations for all parameters were assumed to be below detections level. The RPA uses 95% probability level and 95% confidence basis in accordance with the EPA Guidance entitled “Technical Support Document for Water Quality-based Toxics Control.” The RPA included evaluation of dissolved metals’ standards, utilizing a default hardness value of 25 mg/L CaCO₃ for hardness-dependent metals. The RPA spreadsheets are attached to this Fact Sheet.

a) **RPA for Decanting of Ash Pond (Outfall 003).**
   The RPA was conducted for decanting of Ash Pond, the calculations included: As, Cd, Chlorides, Cr, Cu, F, Pb, Hg, Mo, Ni, Se, Zn, Ba, Sb, SO₄, and Tl (please see attached). The flow of 18.6 MGD was used for the analysis. The discharge data on the EPA Form 2C, and DMR reports were used for the RPA, the data was supplemented by the analysis of the free standing water in the ash pond. The analysis indicates reasonable potential to violate the surface water quality standards or EPA criteria for the following parameters: Cu, Pb, and Tl. The appropriate limits were added to the permit.

b) **RPA for Dewatering of Ash pond (Outfall 003).**
   To meet the requirements of the Coal Ash Management Act of 2014, the facility needs to dewater ash ponds by removing the interstitial water. The facility’s highest discharge rate from the dewatering process will be 2.0 MGD. The facility submitted data for the standing surface water in the ash ponds, interstitial water in the ash, and interstitial ash water that was treated by filters of various sizes. To evaluate the impact of the dewatering on the receiving stream the RPA was conducted for the wastewater that will be generated by the dewatering process. To introduce a margin of safety, the highest measured concentration for a particular parameter was used. The RPA was conducted for As, Cd, Chlorides, Cr, Cu, F, Pb, Hg, Mo, Ni, Se, Zn, Ba, Sb, SO₄, and Tl. The analysis indicates reasonable potential to violate the surface water quality standards or EPA criteria for the following parameters: Cu, Pb, Mo, Se, and Tl. The appropriate limits were added to the permit.

c) **RPA for Seeps Discharging to Dan River (Outfalls 102 and 115).**
   The combined RPA calculations was conducted for all seeps discharging to Dan River. Calculations included: As, Cd, Chlorides, Cr, Cu, F, Pb, Hg, Mo, Ni, Se, Zn, Ba, Sb, SO₄, and Tl. The flow volume for all seeps was measured at 0.2 MGD. However, the flow of 2.0 MGD was used for RPA calculations to incorporate a safety factor, account for potential new seeps that might emerge in the future or increase in flow volume at the existing seeps. The analysis indicates no reasonable potential to violate the surface water quality standards or EPA criteria.

d) **RPA for Seeps Discharging to Belews Lake/Charlie’s Pond (Outfalls 106, 107, 108, 109, and 114).**
   The combined RPA calculations was conducted for all seeps discharging to Belews Lake. Calculations included: As, Cd, Chlorides, Cr, Cu, F, Pb, Hg, Mo, Ni, Se, Zn, Ba, Sb, and Tl. The flow volume for all seeps was measured at 0.013 MGD. However, the flow of 0.13 MGD was used for RPA calculations to incorporate a safety factor, account for potential new seeps that might emerge in the future or increase in flow volume at the existing seeps. The analysis indicates reasonable potential to violate the surface water quality standards or EPA criteria for the following parameters: As, Chlorides, Cu, Ni, Se, Zn, and Tl. The appropriate limits were added to the permit.
e) RPA for Outfall 005.
   The RPA was conducted for Outfall 005, the calculations included: As, Cd, Cr, Cu, Pb, Hg, Mo, Ni, Se, Zn, Ba, Sb, and Tl (please see attached). The flow of 2.59 MGD was used for the analysis. The discharge data on the EPA Form 2C were used for the RPA. The analysis indicates no reasonable potential to violate the surface water quality standards or EPA criteria.

The proposed permit requires that EPA methods 200.7 or 200.8 (or the most current versions) shall be used for analyses of all metals except for total mercury.

MERCURY EVALUATION - OUTFALL 003 (ASH POND)
The State of North Carolina has a state-wide mercury impairment. A TMDL has been developed to address this issue in 2012. The TMDL included the implementation strategy, both documents were approved by EPA in 2012. The mercury evaluation was conducted in accordance with the Permitting Guidelines for Statewide Mercury TMDL.

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</tr>
</thead>
<tbody>
<tr>
<td>Annual average concentration (ng/L)</td>
<td>1.83</td>
<td>2.15</td>
<td>1.47</td>
<td>1.57</td>
<td>2.97</td>
<td>2.6</td>
</tr>
<tr>
<td>Maximum sampling result (ng/L)</td>
<td>2.98</td>
<td>2.69</td>
<td>1.59</td>
<td>1.76</td>
<td>5.0</td>
<td>2.94</td>
</tr>
<tr>
<td>Number of samples</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>9</td>
<td>2</td>
</tr>
</tbody>
</table>

The allowable mercury concentration for this facility is 45.3 ng/L. All annual average mercury concentrations are below the allowable level. All maximum sampling results are below the TBEL of 47.0 ng/L. Based on the Permitting Guidelines for Statewide Mercury TMDL, the limits are not required.

TEMPERATURE VARIANCE – OUTFALL 001
State of North Carolina (NC Board of Water and Air Resources) granted the facility a temperature variance in 1970, which was prior to the 316(a) requirement of the CWA. However, based on the biological study submitted in 2016, the Water Sciences Section of the DWR concluded that the information provided in the latest report is insufficient to determine existence of the Balanced and Indigenous population of fish and macroinvertebrates in the receiving stream.

The facility will be provided a compliance schedule to develop and conduct a comprehensive study of the Belews Lake and obtain a 316(a) Variance in accordance with the 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.

CWA SECTION 316(b)
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. Duke is involved in a large scale decommissioning of ash ponds, excavation of coal ash, landfilling of coal ash, construction of new treatment systems for FGD wastewater and other wastes, and conversion to zero liquid discharge for bottom ash. Under these circumstances, Duke is unable to develop comprehensive documentation required by 316(b) rule during this renewal.
INSTREAM MONITORING– OUTFALL 003 (ASH POND)

In 2014, the facility provided instream sampling data for Oil & Grease, COD, Chlorides, Fluoride, Sulfate, Mercury, Aluminum, Barium, Boron, Calcium, Hardness, Iron, Magnesium, Manganese, Zinc, Antimony, Arsenic, Cadmium, Chromium, Copper, Lead, Molybdenum, Nickel, Selenium, Thallium, TDS, TSS, pH, Temperature, and Specific Conductance. The upstream monitoring station was located approximately 6,000 ft. upstream of Outfall 003 and the downstream monitoring station was located approximately 21,000 ft. downstream of the Outfall 003.

The following parameters were below detection level at both monitoring stations: Oil & Grease, COD, Fluoride, Mercury, Zinc, Antimony, Arsenic, Cadmium, Chromium, Copper, Lead, Molybdenum, Nickel, Selenium, and Thallium. All parameters were well below water quality standards/EPA criteria.

The proposed permit will require a semi-annual monitoring for total arsenic, total selenium, total mercury (method 1631E), total chromium, total lead, total cadmium, total copper, bromide, total hardness, turbidity, Total Dissolved Solids (TDS), and total zinc.

FISH TISSUE MONITORING–NEAR OUTFALL 003

The permit required fish tissue monitoring for As, Se, and Hg near the ash pond discharge once every 5 years. This frequency is consistent with EPA guidance. Golden Redhorse and Redbreast Sunfish tissues were analyzed for these trace elements. The data was collected from one locations upstream of the discharge and two locations downstream of the discharge. The results were below NC human consumption advisory levels for Se and Hg (10.0 µg/g – Se, 0.40 µg/g – Hg, NC) and screening value for As (1.20 – µg/g, EPA). Only one Golden Redhorse from one downstream location had a mercury concentration of 0.40 µg/g, which is equal to NC human consumption advisory level for Hg.

TOXICITY TESTING–OUTFALL 003 (ASH POND)

Type of Toxicity Test: Chronic P/F
Existing Limit: 003: Chronic P/F @ 19% (Ceriodaphnia dubia)
Recommended Limit: 003: Chronic P/F @ 26.5% (Ceriodaphnia dubia)

This facility has passed all toxicity tests (22 out of 22) during the previous permit cycle, please see attached.

The Division will increase the Instream Waste Concentration from 19% to 26.5% due to the increased wastewater flow, reported as 18.6 MGD. For the purposes of the permitting, the highest monthly average flow reported during the last 3 years in conjunction with the 7Q10 summer flow was used to calculate the percent effluent concentration to be used for WET.

COMPLIANCE SUMMARY

During the last 5 years, the facility had 1 violations of the Copper limit (Outfall 003), please see attached.

PERMIT LIMITS DEVELOPMENT

- The temperature limit in the permit (Outfall 001) is based on the North Carolina water quality standards (15A NCAC 2B .0200).
The limits for Oil and Grease and Total Suspended Solids (Outfall 003, Outfall 003A, Outfall 106, Outfall 107, Outfall 108, Outfall 109, Outfall 114, Outfall 102, and Outfall 115) were established in accordance with the 40 CFR 423.

The pH limits (Outfall 003, Outfall 003A, Outfall 106, Outfall 107, Outfall 108, Outfall 109, Outfall 114, Outfall 102, and Outfall 115) in the permit are based on the North Carolina water quality standards (15A NCAC 2B .0200).

The turbidity limit in the permit (Outfall 003) is based on the North Carolina water quality standards (15A NCAC 2B .0200).

The Whole Effluent Toxicity limit (Outfall 003) is based on the requirements of 15A NCAC 2B .0500.

The BOD and Fecal Coliform limits (Outfall 003 and Outfall 003A) were established in accordance with the 40 CFR 133.

The Technology Based Effluent Limits for Total Arsenic, Total Mercury, Total Selenium, Nitrate/nitrite as N, Oil and Grease and Total Suspended Solids (Internal Outfall 002) are based on the requirements of 40 CFR 423.

The Technology Based Effluent Limit for Total Iron (Outfall 003) are based on the requirements of 40 CFR 423.

The Water Quality Based Effluent Limits for Total Aluminum, Total Copper, Total Lead, and Total Thallium in the permit (Outfall 003 – normal operations/decanting) are based on the North Carolina water quality standards (15A NCAC 2B .0200) and EPA water quality criteria.

The Water Quality Based Effluent Limits for Total Aluminum, Total Copper, Total Molybdenum, Total Selenium, Total Lead, and Total Thallium in the permit (Outfall 003 – dewatering) are based on the North Carolina water quality standards (15A NCAC 2B .0200) and EPA water quality criteria.

The Water Quality Based Effluent Limits for Total Zinc, Total Arsenic, Total Copper, Total Thallium, Total Nickel, Total Selenium, and Chlorides (Outfall 106, Outfall 107, Outfall 108, Outfall 109, and Outfall 114) are based on the North Carolina water quality standards (15A NCAC 2B .0200) and EPA water quality criteria.

Ammonia limits in the permit (Outfall 003 and Outfall 003A) are based on the ammonia criteria (monthly average limit). The Division uses ammonia criteria that were developed by EPA: 1 mg/L - summer; 1.8 mg/L – winter.

PROPOSED CHANGES

- The following monitoring parameters were eliminated (Internal Outfall 002) to be consistent with the latest update to 40 CFR 423: Chlorides and TSS.
- The Technology Based Effluent Limits for Total Arsenic, Total Mercury, Total Selenium, and Nitrate/nitrite as N were added to the permit (Internal Outfall 002) based on the requirements in 40 CFR 423.
- The Decanting Special Conditions were added to Outfall 003, please see A. (3.).
- Monitoring frequency for all parameters that were previously monitored Quarterly were reduced to Monthly (Outfall 003 – normal operations/decanting), please see A. (3.).
- Instream Waste Concentration for Outfall 003 (normal operations/decanting) was increased to 26.5% from 19% based on the latest flow information.
- The compliance dates for fly ash transport water (May 1, 2017) and bottom ash transport water (May 31, 2021) were added to Outfall 003 in accordance with 40 CFR 423.
- The compliance date of November 1, 2019 for Technology Based Effluent Limits was added to Internal Outfall 002 in accordance with 40 CFR 423.
- The daily maximum limit and monthly average limit for Sulfates (Outfall 003 – normal operations/decanting) were removed from the permit based on the results of Reasonable Potential Analysis.
• The Water Quality Based Effluent Limits for Total Copper, Total Lead, and Total Thallium were added to the permit based on the results of Reasonable Potential Analysis (Outfall 003 – normal operations/decanting).
• A separate effluent page for the dewatering of the ash pond (Outfall 003) was added to the permit. Please see Condition A. (4.).
• A separate effluent page for the new Retention Basin (Outfall 003A) was added to the permit. Please see Condition A. (5.).
• The “Clean Water Act Section 316(b)” Special Condition was updated. Please see Special Condition A. (19.).
• The limits for BOD and Fecal Coliforms were added to Outfall 003 to address the EPA comment.
• The attachment 1 entitled “Groundwater Monitoring Plan” was added to the permit.
• The Instream Monitoring Special Condition was added to the permit to monitor the impact of the facility on the receiving stream. Please see Special Condition A. (26.).
• The Seep Outfalls 106, 107, 108, 109, 114, 102, and 115 (Please see A. (6.) through A. (12.)) and Discharge from Seepage Special Condition (Please see A. (27.)) were added to the permit.
• The Ash Pond Closure Special Condition was added to the permit to facilitate the decommissioning of the ash ponds. Please see Special Condition A. (28.).
• Federal regulations require electronic submittal of all discharge monitoring reports (DMRs) and program reports. The final NPDES Electronic Reporting Rule was adopted and became effective on December 21, 2015. The requirement to begin reporting discharge monitoring data electronically using the NC DWR’s Electronic Discharge Monitoring Report (eDMR) internet application has been added to your final NPDES permit. [See Special Condition A. (29.)]

For information on eDMR, registering for eDMR and obtaining an eDMR user account, please visit the following web page: [http://deq.nc.gov/about/divisions/water-resources/edmr](http://deq.nc.gov/about/divisions/water-resources/edmr).

For more information on EPA’s final NPDES Electronic Reporting Rule, please visit the following web site: [http://www2.epa.gov/compliance/final-national-pollutant-discharge-elimination-system-npdes-electronic-reporting-rule](http://www2.epa.gov/compliance/final-national-pollutant-discharge-elimination-system-npdes-electronic-reporting-rule).

• The turbidity limit was added to the permit (Outfall 003) to meet the state turbidity standard per 15A NCAC 2B .0211(3) (k).
• The Plan for Identification of New Discharges was added to the permit, please see Attachment 2.
• Thermal Variance special condition was updated (Please see A. (30.).)
• A special condition entitled FGD treatment was added to the permit to meet EPA requirements (Please see A. (31.).)
• A new outfall was added to the permit (Outfall 005). This is a former stormwater outfall SW002, it consists of once through non-contact chiller water and stormwater.
• The limits for aluminum were added to Outfall 003 based on the review of the data.

**PROPOSED SCHEDULE**
Draft Permit to Public Notice: January 3, 2017
Permit Scheduled to Issue: February 17, 2017
STATE CONTACT
If you have any questions on any of the above information or on the attached permit, please contact Sergei Chernikov at (919) 807-6386 or sergei.chernikov@ncdenr.gov.