

Quarterly Report to the N.C. Environmental Review Commission on Operations, Activities, Programs and Progress Relating to Coal Combustion Residuals Surface Impoundments

1st Quarter 2018



This report is submitted to meet the requirements of General Statute 130A-309.204, which requires the Department of Environmental Quality to submit quarterly reporting on operations, activities, programs and progress relating to coal combustion residuals surface impoundment

**North Carolina Department of Environmental Quality
Division of Water Resources – Water Quality Regional Operations Section
CAMA Quarterly Report – 1st Quarter 2018**

§ 130A-309.204. Reports.

(a) The Department shall submit quarterly written reports to the Environmental Review Commission and the Coal Ash Management Commission on its operations, activities, programs, and progress with respect to its obligations under this Part concerning all coal combustion residuals surface impoundments. At a minimum, the report shall include:

- information concerning the status of assessment,
- corrective action,
- prioritization, and
- closure for each coal combustion residuals surface impoundment
- and information on costs connected therewith.

The report shall include an executive summary of each annual Groundwater Protection and Restoration Report submitted to the Department by the operator of any coal combustion residuals surface impoundments pursuant to G.S. 130A-309.211(d) and a summary of all groundwater sampling, protection, and restoration activities related to the impoundment for the preceding year...

Assessment and Corrective Action Status

- Individual site-specific status notes included below.

Prioritization Status (reference G.S. 130A-309.213)

- Facilities classified as high-risk are Asheville Steam Station, Dan River Combined Cycle Station, Riverbend Steam Station, and L. V. Sutton Energy Complex.
- Facilities classified as intermediate-risk are H. F. Lee Energy Complex, Cape Fear Steam Electric Plant, and W. H. Weatherspoon Power Plant
- Facilities classified as intermediate-low risk (Allen Steam Station, Belews Creek Steam Station, Buck Combined Cycle Station, James E. Rogers Energy Complex, Marshall Steam Station, Mayo Steam Electric Plant, and Roxboro Steam Electric Plant) are still being considered for low risk. A final decision will be made based on criteria under 130A-309.213(d), which requires a final decision be made no later than 30 days after the expiration of the deadline, October 15, 2018, or the applicable extension granted by the Secretary. The owner of the coal combustion residuals can apply for an extension not to exceed one year.

Closure Status (reference G.S. 130-309.214)

- Low-risk impoundments are required to be closed no later than December 31, 2029. A proposed closure plan for low-risk impoundments must be submitted no later than December 31, 2019.

- Intermediate-risk impoundments are required to be closed no later than December 31, 2024. A proposed closure plan for intermediate-risk impoundments must be submitted no later than December 31, 2019.
- High-risk impoundments are required to be closed no later than December 31, 2019. Proposed plans were submitted by December 31, 2016.
- Individual site-specific status notes are included below.

Costs (reference G.S. 130-309.214(m))

- Costs are required to be included with the site closure plans. Closure plans for the high-risk impoundments were submitted in January 2017 but were deemed incomplete by DEQ.

Allen Steam Station

- Assessment and Corrective Action Status
 - On January 15, 2018, the Division of Water Resources (DWR) received an updated compliance boundary map for the facility. This updated map was for the NPDES permit renewal.
 - On January 31, 2018, Duke Energy submitted an updated Comprehensive Site Assessment (CSA) Report for the facility. This report is currently being reviewed by the DWR Mooresville Regional Office.
 - On January 16, 2018, DWR received a work plan to address potential soil and groundwater contamination resulting from the raw coal pile. DWR is currently preparing a response to Duke.
- Closure Status
 - Per 130A-309.213(d), DEQ is required to issue a final classification by November 14, 2018, or 30 days after the expiration of the approved extension date. This final classification will determine the closure methods available for the impoundments.

Asheville Steam Electric Plant

- Assessment and Corrective Action Status
 - On February 15, 2018, DWR received an updated compliance boundary map for the facility. This updated map was for the NPDES permit renewal.
 - Duke has proposed to submit the updated CSA Report on July 31, 2018.
 - On February 16, 2018, DWR sent an official approval of the 100% Basis of Design Report for interim corrective action measures. Interim actions for corrective action are underway at the facility.
- Closure Status
 - 1964 Basin
 - Excavation of the impoundment in progress.
 - 1982 Basin
 - Impoundment completely excavated.
 - On February 27, 2018, DWR sent an approval letter for the visual confirmation of the sampling of soil beneath the excavated 1982 basin.

Belews Creek Steam Station

- Assessment and Corrective Action Status
 - On January 10, 2018, DEQ sent formal approval to Duke to begin providing alternate water to residents within ½ mile of the facility (Per G.S. 130A-309.21(c1). Duke will be providing alternate water via whole-house filtration systems.
 - On February 9, 2018, DWR sent formal approval of Duke's proposed surface water sampling plan for the facility.
 - On February 15, 2018, DWR received an updated compliance boundary map for the facility. This updated map was for the NPDES permit renewal.
 - On October 31, 2017, Duke submitted the updated CSA Report for the facility and it is currently under review by the Department.
 - Proposed background threshold values for constituents in soil and groundwater were submitted with the updated CSA Report and are currently under review by the Department.
 - On February 16, 2018, DWR sent an official approval of the 100% Basis of Design Report for interim corrective action measures. Interim actions for corrective action are underway at the facility.
- Closure Status
 - Per 130A-309.213(d), DEQ is required to issue a final classification by November 14, 2018, or 30 days after the expiration of the approved extension date. This final classification will determine the closure methods available for the impoundments.

Buck Combined Cycle Station

- Assessment and Corrective Action Status
 - On February 15, 2018, DWR received an updated compliance boundary map for the facility. This updated map was for the NPDES permit renewal.
 - Duke has proposed to submit the updated CSA Report on September 30, 2018.
- Closure Status
 - Per G.S. 130A-309.216, Duke was required to identify, at a minimum, three sites for beneficial reuse. Duke selected this facility for beneficial reuse. G.S. 130A-309.216(c) states that sites selected for beneficiation projects must close by December 31, 2029.

Cape Fear Steam Electric Plant

- Assessment and Corrective Action Status
 - On February 15, 2018, DWR received an updated compliance boundary map for the facility. This updated map was for the NPDES permit renewal.
 - Duke has proposed to submit the updated CSA Report on September 30, 2018.
- Closure Status
 - Per G.S. 130A-309.216, Duke was required to identify, at a minimum, three sites for beneficial reuse. Duke selected this facility for beneficial reuse. G.S. 130A-309.216(c) states that sites selected for beneficiation projects must close by December 31, 2029.

James E. Rogers Energy Complex (Formerly Cliffside Steam Station)

- Assessment and Corrective Action Status
 - On February 15, 2018, DWR received an updated compliance boundary map for the facility. This updated map was for the NPDES permit renewal.
 - On January 31, 2018, Duke Energy submitted an updated CSA Report for the facility. This report is currently being reviewed by the DWR Asheville Regional Office.
 - Duke continues to assess a former coal ash storage area north of Broad River.
- Closure Status
 - Inactive Units 1-4 are completely excavated
 - Per 130A-309.213(d), DEQ is required to issue a final classification by November 14, 2018, or 30 days after the expiration of the approved extension date. This final classification will determine the closure methods available for the impoundments.

Dan River Combined Cycle Station

- Assessment and Corrective Action Status
 - On December 12, 2017, DEQ receive a revised excavation plan for the facility. DWR is reviewing the soil sampling portion of the plan and will be providing comments to Duke soon.
 - On January 31, 2018, Duke Energy submitted an updated CSA Report for the facility. This report is currently being reviewed by the DWR Winston-Salem Regional Office.
- Closure Status
 - Excavation at the site is currently underway.

H. F. Lee Energy Complex

- Assessment and Corrective Action Status
 - On January 18, 2018, DWR received a work plan to address potential soil and groundwater contamination resulting from the triangle pond. DWR is currently preparing a response to Duke.
 - On February 15, 2018, DWR received an updated compliance boundary map for the facility. This updated map was for the NPDES permit renewal.
 - Duke has proposed to submit the updated CSA Report on September 30, 2018.
- Closure Status
 - Per G.S. 130A-309.216, Duke was required to identify, at a minimum, three sites for beneficial reuse. Duke selected this facility for beneficial reuse. G.S. 130A-309.216(c) states that sites selected for beneficial projects must close by December 31, 2029.

Marshall Steam Station

- Assessment and Corrective Action Status
 - On December 21, 2017, DWR received an updated compliance boundary map for the facility. This updated map was for the NPDES permit renewal.
 - On January 31, 2018, Duke Energy submitted an updated CSA Report for the facility. This report is currently being reviewed by the DWR Mooresville Regional Office.
- Closure Status
 - Per 130A-309.213(d), DEQ is required to issue a final classification by November 14, 2018, or 30 days after the expiration of the approved extension date. This final classification will determine the closure methods available for the impoundments.

Mayo Steam Electric Plant

- Assessment and Corrective Action Status
 - On January 10, 2018, DEQ sent formal approval to Duke to begin providing alternate water to residents within ½ mile of the facility (Per G.S. 130A-309.21(c1). Duke will be providing alternate water via whole-house filtration systems.
 - On February 12, 2018, Duke submitted a plan to sample surface water at the facility. DWR is currently reviewing the plan and will provide comments to Duke soon.
 - On February 15, 2018, DWR received an updated compliance boundary map for the facility. This updated map was for the NPDES permit renewal.
 - On October 31, 2017, Duke submitted the updated CSA Report for the facility and it is currently under review by the Department.
 - Proposed background threshold values for constituents in soil and groundwater were submitted with the updated CSA Report and are currently under review by the Department.
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- Closure Status
 - Per 130A-309.213(d), DEQ is required to issue a final classification by November 14, 2018, or 30 days after the expiration of the approved extension date. This final classification will determine the closure methods available for the impoundments.

Riverbend Steam Station

- Assessment and Corrective Action Status
 - On December 12, 2017, DWR received an updated excavation plan from Duke. DWR is reviewing the soil sampling portion of the plan and will be providing comments to Duke soon.
 - On January 15, 2018, DWR received a work plan to address potential soil and groundwater contamination resulting from the former raw coal pile area. DWR is currently preparing a response to Duke.

- On February 2, 2018, Duke submitted plans for sampling surface water at the facility as part of their upcoming Corrective Action Plan (CAP). On February 15, 2018, DWR approved the plan.
- On October 31, 2017, Duke submitted the updated CSA Report for the facility and it is currently under review by the Department.
- Proposed background threshold values for constituents in soil and groundwater were submitted with the updated CSA Report and are currently under review by the Department.
- Closure Status
 - Excavation at the site is currently underway.

Roxboro Steam Electric Plant

- Assessment and Corrective Action Status
 - On January 10, 2018, DEQ sent formal approval to Duke to begin providing alternate water to residents within ½ mile of the facility (Per G.S. 130A-309.21(c1). Duke will be providing alternate water via whole-house filtration systems.
 - On January 30, 2018, Duke submitted a plan to sample surface water at the facility. DWR is currently reviewing the plan and will provide comments to Duke soon.
 - On February 15, 2018, DWR received an updated compliance boundary map for the facility. This updated map was for the NPDES permit renewal. The Department is still reviewing the maps to determine the placement of the compliance boundary.
 - On October 31, 2017, Duke submitted the updated CSA Report for the facility and it is currently under review by the Department.
 - Proposed background threshold values for constituents in soil and groundwater were submitted with the updated CSA Report and are currently under review by the Department.
- Closure Status
 - Per 130A-309.213(d), DEQ is required to issue a final classification by November 14, 2018, or 30 days after the expiration of the approved extension date. This final classification will determine the closure methods available for the impoundments.

L. V. Sutton Energy Complex

- Assessment and Corrective Action Status
 - On December 12, 2017, DWR received an updated excavation plan from Duke. On March 9, 2018, DWR approved the soil sampling portion of the plan.
 - On January 31, 2018, Duke Energy submitted an updated CSA Report for the facility. This report is currently being reviewed by the DWR Wilmington Regional Office.
 - On February 20, 2018, DWR received a request to modify the interim corrective action schedule for the facility. On March 1, 2018, DWR approved the proposed schedule. Interim corrective actions are currently underway at the facility.
- Closure Status

- Excavation at the site is currently underway.

W. H. Weatherspoon Power Plant

- Assessment and Corrective Action Status
 - On December 19, 2017, DWR received an updated excavation plan from Duke. DWR is reviewing the soil sampling portion of the plan and will be providing comments to Duke soon.
 - On January 15, 2018, DWR received a work plan to address potential soil and groundwater contamination resulting from the former raw coal pile area. DWR is currently preparing a response to Duke.
 - On February 15, 2018, DWR received an updated compliance boundary map for the facility. This updated map was for the NPDES permit renewal.
 - On February 16, 2018, Duke submitted a proposal to modify the interim monitoring plan for the facility due to well abandonments. On March 1, 2018, DWR approved the modifications.
 - Duke has proposed to submit the updated CSA Report on September 30, 2018.
- Closure Status
 - Per G.S. 130A-309.216, Duke was required to identify, at a minimum, three sites for beneficial reuse. Duke selected this facility for beneficial reuse. G.S. 130A-309.216(c) states that sites selected for beneficiation projects must close by December 31, 2029.

Annual Groundwater Protection and Restoration Reports

- The Annual Groundwater Protection and Restoration Reports have been uploaded to the DEQ website.
- <https://edocs.deq.nc.gov/WaterResources/Browse.aspx?startid=221202&dbid=0&cr=1>
- Since the reports are very concise, they do not lend themselves to being summarized. The report does, however, summarize all groundwater sampling, protection, and restoration activities related to the impoundment for the preceding year.

Division of Waste Management

This report is submitted to meet the requirements of General Statute 130A-309.204, which requires the Department of Environmental Quality to submit quarterly reporting on operations, activities, programs and progress relating to coal combustion residuals surface impoundments. This report is intended to provide an update on activities that have occurred since January 1, 2018.

The March 2018 Division of Waste Management's portion of the Quarterly Report to the N.C. Environmental Review Commission is as follows:

Duke facilities with industrial landfills - The North Carolina Division of Waste Management's Solid Waste Section (Section) regulates industrial coal combustion residual landfills in accordance with 15A NCAC 13B .0500.

Allen Steam Station – Gaston County

- 3612-INDUS-2008: Retired Ash Basin Landfill (open, double-lined, landfill constructed on top of retired ash basin)
 - Cell 2B currently receiving coal ash
- Inspected June 19, 2017

Belews Creek Steam Station – Stokes County

- 8503-INDUS-1984: Pine Hall Road Landfill (closed, unlined)
 - Inspected February 23, 2018
- 8504-INDUS: Craig Road Landfill (open, lined)
 - Permit to Operate (PTO), renewal issued November 28, 2017
 - Paste Demonstration Project for bromide sequestration authorized August 18, 2017, has been placed on hold pending additional information from DWR
 - Inspected February 23, 2018
- 8505-INDUS: Flue Gas Desulfurization (FGD) Landfill (open, lined)
 - The facility has been mining gypsum from landfill to meet wallboard production needs, thus increasing landfill capacity, since June 2015
 - Permit to Operate issued November 28, 2017
 - Groundwater (GW) Assessment: requested November 9, 2011 for 8503 and 8504, approved May 2, 2016; 8505 continues under groundwater assessment – approved additional assessment workplan Nov 7, 2016, approved amendment to workplan on Feb 24, 2017, received assessment report May 31, 2017, Section concurrence August 21, 2017
 - Inspected February 23, 2018

Dan River Steam Station – Rockingham County (retired coal-fired plant, converted to combined cycle turbine)

- 7906-INDUS-2016
- PTO/Permit to Construct (PTC) issued October 26, 2016
- CAMA requires basin ash removal by 2019
- Basin ash to Waste Management Landfill, Jetersville, VA and to Roanoke Cement, Troutville, VA for concrete production, contract complete June 2017
- Cell 1 Operation authorized May 30, 2017
- First load of ash disposed in Cell 1 May 31, 2017
- Cell 2 operation authorized on October 2, 2017

Mayo Steam Electric Plant – Person County

- 7305-INDUS-2012 (open, double lined)
- Groundwater Assessment: workplan Jan 31, 2017, revised workplan Feb 23, 2017; approval March 22, 2017; GW assessment status letter Jan 17, 2018; Solid Waste Section (SWS) response to status letter Jan 26, 2018
- Leachate Environmental Event Report Aug 16, 2017
- Inspected September 7, 2017

Marshall Steam Station – Catawba County

- 1804-INDUS-1983: Dry Ash Landfill (closed, unlined)
- 1809-INDUS: FGD Landfill (open but active, lined)
 - Last received waste Oct. 16, 2015, 12-inch interim cover and established vegetation
 - PTO, renewal December 20, 2016
 - Revised Closure and Post-Closure Plan approved March 5, 2018
- 1812-INDUS-2008: Industrial Landfill #1 (open, double lined)
 - Preconstruction meeting for PTC Cells 3 and 4 - February 9, 2017
- Groundwater Assessment: 1804 & 1809 requested Nov. 9, 2011; 1804 response December 12, 2012; 1809 response July 12, 2012; 1804 & 1809 final approval May 2, 2016
- Inspected July 13, 2017

Rodgers Energy Complex – Rutherford County

- 8106-INDUS-2009: Landfill (open, lined)
- PTO Phase I and II issued June 2016
- Plant and basin ash to landfill (excavation basin units 1-4 complete ~June 2017),
- Inspected June 15, 2017

Roxboro Steam Electric Plant – Person County

- 7302-INDUS-1988: Landfill (open, lined, constructed partially on top of retired ash basin)
- PTO Vertical Expansion Phase 6 December 20, 2016
- Groundwater Assessment: requested June 29, 2016, response September 28, 2016, final approval June 23, 2017
- Inspected October 2, 2017

Sutton Steam Electric Plant – New Hanover County (retired coal-fired plant, converted to combined cycle turbine)

- 6512-INDUS-2016
- PTC September 2016
- CAMA requires basin ash removal by 2019
- Basin ash via rail to the Brickhaven Structural Fill stopped when landfill operations began
- First load of ash disposed in Cell 3 on July 7, 2017
- First load of ash disposed in Cell 4 on ~ September 11, 2017

- Inspected November 15, 2017
- Cell 5 Pre-Operations Meeting December 4, 2017

Landfill off-site of power industry

Halifax County Industrial Landfill – Halifax County

- Westmoreland Partners, Roanoke Valley Energy Plant (intermittently active coal-fired plant)
- 4204-INDUS-1994: Halifax County Coal Ash Landfill (open/inactive, lined)
- Inspected August 8, 2017

Duke facilities without landfills

Asheville Steam Electric Plant - Buncombe County (Duke Energy submitted plans, to convert to combined cycle turbine, to the NC Utilities Commission for approval in 2015)

- The Asheville Airport Structural Fill DWR Distribution of Residual Solids (DORS) Permit #WQ0000452 complete (See Page 12 for more on structural fills)
- CAMA requires basin ash removal by 2022
- Ash excavation from 1982 Basin completed September 2016, basin ash by truck to the Rodgers Steam Plant ended September 2016
- Plant and basin (1964 Basin) ash by truck to Waste Management's Homer, GA landfill

Buck Steam Station – Rowan County (retired coal-fired plant, converted to combined cycle turbine)

- Site of Beneficiation Plant announcement December 2016
- Permitting process to begin Spring 2018
- Operations anticipated to begin Fall 2019

Cape Fear Steam Electric Plant – Chatham County (retired coal-fired plant, no electricity production)

- Site of Beneficiation Plant announced per CAMA June 2017
- Permitting process to begin Summer 2018
- Operations anticipated to begin Spring 2020

H.F. Lee Steam Electric Plant – Wayne County (retired coal-fired plant, converted to combined cycle turbine)

- Site of Beneficiation Plant announced per CAMA December 2016
- Permitting process to begin Summer 2018
- Operations anticipated to begin Summer 2020

Riverbend Steam Station – Gaston County (retired coal-fired facility, no electricity)

- CAMA requires basin ash removal by 2019
- Dry stack and basin ash via rail to Brickhaven Structural Fill.

Weatherspoon Steam Electric Plant – Robeson County, (retired coal-fired facility, no electricity)

- Basin ash to the trucked to beneficial reuse facility in South Carolina began in September 13, 2017. Over 91,000 tons excavated for reuse as of late February 2018.

Coal Combustion Product (CCP) structural fills - The Section regulates large structural fills (greater than 8,000 tons per acre or 80,000 tons per project) in accordance with CAMA and small structural fills in accordance with 15A NCAC 13B .1700.

Brickhaven No. 2, Mine Track “A”, 1910-STRUC-2015 – Chatham County

- Beneficial reuse: mine reclamation (ash from any Duke plant)
- Owned/operated by Charah, Inc.
- 145 acres, 12.5 million tons of ash airspace, approximately 8 years to complete
- Ash from Sutton and Riverbend
- PTC/PTO June 5, 2015, ash by truck October 2015, by rail March 2016
- Last train load from Sutton June 27, 2017
- Partial closure of Cell 1 – 18 acres closed
- Inspection March 5, 2018
- More than 6 million tons of ash placed as of March 2018

Colon Mine Site– Lee County, 5306-STRUC-2015

- Beneficial reuse mine reclamation (ash from any Duke plant)
- Owned/operated by Charah, Inc.
- 118 acres, 8.87 million tons of ash, approximately 5 years to complete
- PTC June 5, 2015, construction has not started

Asheville Airport Area 1 – Buncombe County

- Structural fill Area 1 (18 acres) was the first fill area on the property of the Asheville Airport (multiple other areas would follow with the last completed in 2015) and contains approximately 732,000 tons of coal ash.
- Placement started in 2008 through distribution of residuals (DORS) permit, WQ0000020, and was completed in 2010. This permit was issued by the DEQ Division of Water Quality, which is now the Division of Water Resources (DWR).
- Area 1 is underlain by a geosynthetic liner and capped with soil only. Subsequent fill areas are built in a manner similar to subtitle D landfills. Progress Energy (Duke) indicated that Area 1 would be covered with asphalt and built out with hangers, shops, parking, etc. To-date, the structure is only covered by a soil cap.
- Area 1 has four (4) compliance boundary monitoring wells with DWR collecting split samples with Duke in 2010, 2011, 2012, 2015, 2016 and 2017. Monitoring wells do not exhibit CCR signature impacts to groundwater.
- Hidden Creek residential community, which obtains their water from water supply wells, is immediately downslope from fill site. A stream bisects the CCR Area 1 structure through a CMP that flows through the community. . DWQ Asheville Regional Office collected samples from WSWs in 2010 to establish baseline data for metals and other parameters.

- DWR issued a Notice of Violation (NOV) to Duke in December 2015 for violations of the issued permit. The NOV was based on one soil breach in Area 4 and a separate breach in Area 1 where CCRs were present at the surface due to erosion of the soil cap. Duke complied with the NOV that includes repairing the area. The NOV was closed out without enforcement action.
- Duke notified DWR of a failure or rupture of the slope of Area 1 on September 7, 2017. The rupture had a surface expression approximately 40 feet in length. CCR was visible emerging from the rupture. The failure was observed during the required quarterly inspection. The slope is saturated in the area and downslope of the rupture.
- DWR sent an email dated September 22, 2017 to Duke listing requirements including temporary slope stabilization and removal of ash material at the surface and were based on the reported conditions and consideration of potential slope failure in proximity to the residential community.
- An NOV was issued on November 11, 2017 specifying needed corrective action and assessment measures including a slope stability analysis to be performed and a report to be submitted within 90 days. Duke Energy is contesting the NOV in the Office of Administrative Hearings. DWR staff along with Attorney General staff will participate in mediation in Raleigh on April 17th.
- DWR (WQROS ARO) requested that DEMLR's N.C. Geologic Survey (NCGS) provide technical consultation on the project. DEMLR staff have continued to provide technical consultation including participating in field inspections, assimilating GIS data, collecting field data, providing review comments on the 90 day report, etc. DWR and DEMLR staff have performed field inspections multiple times a month since the breach event. DWR continues to be in contact with Duke staff and contractors regarding the site's conditions, data collection, reporting, etc.
- DWR asked Duke for an emergency response plan in case of catastrophic slope failure which Duke stated was unnecessary since the Airport had emergency response plans. Mr. Wooten has been in communication with Dr. Ken Taylor of Division of Energy Minerals and Land Resources regarding the issue of safety.
- On November 1, 2017, DWR staff collected surface water samples at eight (8) locations. One sample of a seep that flows through the Hidden Creek Community has a CCR chemical signature that includes arsenic, boron and cobalt.
- Duke Energy submitted their 90-day report on December 29, 2017. DWR and NCGS are currently completing our review comments to communicate to Duke. In the 90-day report, Duke indicates that the slope is stable within an acceptable factor of safety.

Asheville Airport Area 2– Buncombe County

- Area 2 permit to construct application, sent to DWM, withdrawn.
- Areas 3 and 4 constructed (DWR DORS Permit #WQ0000452)

Inventory of structural fills per Session Law 2014 122:

<http://deq.nc.gov/about/divisions/waste-management/solid-waste-section/coal-combustion-byproducts>.

Groundwater assessment and corrective action at structural fills

Roxboro Steam Station Gypsum Storage Pad (CCB0003)

- Groundwater Assessment Work Plan-Duke submitted November 20, 2016; Section approved December 6, 2016; Groundwater Assessment Report submitted June 28, 2017

Belews Creek Steam Station Structural Fill (CCB0070)

- Groundwater Assessment Work Plan-Duke submitted November 7, 2016; Section approved December 7, 2016; approval to install well clusters May 26, 2017; approval of time extension Dec 15, 2017; Groundwater Assessment Report submitted January 5, 2018; Section response to assessment report Jan 23, 2018

Swift Creek in Nash County (CCB0057)

- Groundwater assessment complete
- Corrective Action to start in Spring 2017
- XRF (in situ metals) and dust sampling September 6, 2017
- Project complete December 2017.
- Final Cover and seeding complete January 2018.

Arthur's Creek/Henry Long Property in Northampton County (CCB0064)

- Groundwater Assessment ongoing in conjunction with Division of Water Resources. Notice of Violation issued October 21, 2016 for impacts to wetlands and surface water.

Division of Energy, Mineral, and Land Resources

This report is submitted to meet the requirements of General Statute 130A-309.204, which requires the Department of Environmental Quality to submit quarterly reporting on operations, activities, programs and progress relating to coal combustion residuals surface impoundments. This report is intended to provide an update on activities that have occurred or have been reported for the first quarter of 2018.

The March 2018 Division of Energy, Mineral, and Land Resources' portion of the Quarterly Report to the N.C. Environmental Review Commission is as follows:

N.C. Division of Energy, Mineral, and Land Resources

Duke and other Company facilities with dams, construction development, industrial activities, and mining operations- The North Carolina Division of Energy, Mineral, and Land Resources regulates industrial coal combustion residual landfills in accordance with CAMA as well as the State Dam Safety Law (NCGS 143-215.23), the Sedimentation Pollution Control Act (NCGS 113A-50), the Mining Act (NCGS 74-46), and the State Stormwater Program under the authority of multiple Session Laws along with their associated Administrative Code.

Allen Steam Station

Dam Safety

- Comments sent by MRO to Central Office for Application for Approval to Construct a Retention Basin Dam – Revision / Allen Steam Station / Proposed Retention Basin Dam, (GASTO-TBD), Scope 1.
- Comments sent to Raleigh on Request for Certificate of Final Approval of Instrumentation Installation (COAI) – As-built.
- GASTO-016, 061, 324 Notice of Inspections (NOIs) sent.
- Retention Basin (GASTO-TBD) – Certificate of Approval (COA) issued: for PHASE 1 (PHASE 2 WITHIN 90 DAYS)
- Updated EAP GASTO-061, 016

Erosion and Sediment Control and Construction Stormwater

- GASTO-2018-013 Allen Steam Station (Additional Area to Water Redirection Plan) issued Approval with Modifications (A/M).
- GASTO-2017-015 Revised Plan issued A/M.
- GASTO-2009-001 Revised Plan issued A/M.

Buck Steam Station

Dam Safety

- Comments sent by MRO to Central Office Certificate of Approval to Modify Request – Cliffside Dam Modification CLEVE-047 Scope 7 ,
- Comments sent on RUTHE-070.
- CLEVE-047, 049, 050, RUTHE-070, 072 NOIs sent.
- Periodic inspections of ROWAN-047, 068, 069, 070, 071, no outstanding NODs.
- As-built inspection for instrumentation installation.
- Updated EAPs ROWAN-68, 69, 70, 71

Erosion and Sediment Control and Construction Stormwater

- ROWAN-2018-004 Buck Final Grading Plan for Decommissioning disapproved
- ROWAN-2018-001 Buck Steam Station - Basin 3 Spillway Modification revision A/M issued.
- ROWAN-2018-004 Revised issued A/M.
- ROWAN-2014-007, ROWAN-2015-006, ROWAN-2015-014, ROWAN-2015-017, ROWAN-2017-001, ROWAN-2017-003, ROWAN-2018-001 inspected, in compliance.
- Beneficiation Project Phase 1 approve for tree clearing.

Cliffside Steam Station

Dam Safety

- Comments sent by MRO to Central Office- Certificate of Approval to Modify Request – Cliffside Dam Modification CLEVE-047 Scope 7.
- Comments sent by MRO to Central Office on RUTHE-070.
- CLEVE-047, 049, 050, RUTHE-070, 072 NOIs sent.
- Periodic inspections of CLEVE-047, 049, 050, 053, 054 & RUTHE-070, 072 performed. No outstanding NODs.

- Periodic inspections of CLEVE-047, 049, 050, 053, 054 & RUTHE-070, 072 performed. No outstanding NODs.
- Updated Emergency Action Plan (EAP) RUTHE-070, 072, CLEVE-050, 49, 47
- Scope 6: Certificate of Approval to Repair (COAR) issued
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Erosion and Sediment Control and Construction Stormwater

- CLEVE-2018-014 Cliffside Steam Station Ash Basin Groundwater Assessment issued A/M 10/10/2017.
- CLEVE-2017-023 Cliffside Lateral 16-Inch Gas Pipeline issued A/M.
- CLEVE-2017-018 Revised issued A/M.
- CLEVE-2018-028 Cliffside Steam Station Natural Gas Line Installation currently under review.
- CLEVE-2015-020, CLEVE-2016-032, CLEVE-2016-033, CLEVE-2017-001, CLEVE-2017-029 inspected & closed.
- CLEVE-2016-006, CLEVE-2018-014 inspected, in compliance.

Marshall Steam Station

Dam Safety

- Comments sent by MRO to Central Office (Raleigh) for proposed Retention basin and Holding basin CATAW-000.
- Comments sent to Raleigh CATAW-054.
- Notice of Inspection (NOI) sent.
- Periodic inspection CATAW-054, no outstanding NODs. Also as-built for instrumentation installation.
- Updated EAPs for CATAW-054, TBD(Retention Basin), TBD(Holding Basin)
- CATAW-TBD (Retention Basin) – COA for Phase 1
- CATAW-TBD (Holding Basin) - COA

Erosion and Sediment Control and Construction Stormwater

- CATAW-2018-002 Revised issued A/M.
- CATAW-2018-011 Marshall Perimeter Fence issued A/M.
- CATAW-2018-010 Marshall OPGW - Mooresville Region issued A/M.
- CATAW-2014-009 inspected & closed.
- CATAW-2017-014 inspected, not in compliance.

Riverbend Steam Station

Dam Safety

- GASTO-097, 098, 099 Notice of Inspections (NOIs) sent.
- Updated EAPs for GASTO-097, 098, 099

Erosion and Sediment Control and Construction Stormwater

- GASTO-2018-008 Riverbend Cinder Storage Area CCR Removal Stormwater Management issued A/M.

Belews Creek Steam Station

Dam Safety

- Updated Emergency Action Plans (EAPs) STOKE-118, 119
- Certificate of Approval (COA) for construction for Holding Basin and Retention Basin (STOKE-TBD, TBD)

Erosion and Sediment Control and Construction Stormwater

- Belews Creek Process & Storm Water RE Direction (STOKE-2017-008) inspected.
- Belews Creek Steam Station Coal Pile (STOKE-2017-009) inspected.
- Belews Creek SS Proposed Groundwater Extraction System (STOKE-2017-018) inspected.
- Belews Creek Flue Gas Desulfurization (STOKE-2016-001) inspected.
- Belews Creek BC-419 Vegetation Removal Saddle Dike #1 (STOKE-2016-007) inspected.
- Belews Creek Craig Road Ash Ventures Roadway Improvements (STOKE-2017-006) inspected.
- Belews Creek Exploratory Wells Addition #3 (STOKE2017-012) inspected.
- Belews Creek Craig Road Borrow Area E&SC Plan (Stoke-2017-013) inspected.
- Belews Creek Proposed Well Replacement (STOKE-2017-019) inspected.

Dan River Steam Station

Dam Safety

- Updated EAPs on ROCKI-237, 238, and 241
- ROCKI-237 Submittal received and Additional Information requested

Erosion and Sediment Control and Construction Stormwater

- Nothing to report at this time

Sutton Power Station

Dam Safety

- Updated EAPs for NEWHA-005, 003, and 004
- Received 2nd Revised Submittal for Scope 3 of NEWHA-004
- COA Extension issued for Scope 1 of NEWHA-004
- Received 2nd Revised submittal for Scope 4 of NEWHA-005
- Received submittal for Scope 1 of NEWHA-003
- Received submittal for Scope 2 of NEWHA-003

Erosion and Sediment Control and Construction Stormwater

- Nothing to report at this time

Cape Fear Power Station

Dam Safety

- Comments were provided by RRO to Central Office for Approval to complete emergency repair 1956 ash basin; Vegetation removal, Scope 4, Addendum 1, 1978 Ash Basin.
- Updated EAPs for CHATH-075, 076, 077, 078, and 079
- COA Extension for Scope 3 of CHATH-075

Erosion and Sediment Control

- Inspections were conducted: CHATH-2016-004 1985 Ash Pond Pipe removal (close out);
- CHATH-2017-003 Pipe grouting for 1978 and 1985 (close out); CHATH-2017-004 Cape Fear Facility Tem. Water Treatment (close out);
- CHATH-2017-009 Construction of groundwater treatment (continue vegetative efforts);
- CHATH-2015-008 Subsurface exploration (close out); CHATH-2013-015 Cape Fear Electric Plant decommissioning (close out)

Mayo Power Station

Dam Safety

- Updated EAP received for PERSO-034, 035, 036, 037
- Certificate of Approval to Repair (Vegetation Removal) for PERSO-034
- As Built Received for Scope 4 of PERSO-034
- COA issued for Phase 1 of Construction FGD Settling Pond, PERSO-TBD

Erosion and Sediment Control

- Nothing to report at this time

Roxboro Power Station

Dam Safety

- Issued COAR for Scope 1 of PERSO-002
- Issued COAR for Scope 2 of PERSO-002
- Updated EAP for PERSO-038, 039, 040, 041, 042
- COAR issued for initial exploratory work on PERSO

Erosion and Sediment Control

- Nothing to report at this time

Brickhaven No 2. Tract "A"

Dam Safety – Nothing to Report at this time

Erosion and Sediment Control - Nothing to report at this time

Mining – Nothing to report at this time

Colon Mine Permit 53-05

Dam Safety – Nothing to Report at this time

Erosion and Sediment Control - Nothing to report at this time
Mining - Nothing to report at this time

Weatherspoon Power Station

Dam Safety

- Updated EAPs for ROBES-004 and 009
- Completed annual inspections for ROBES-004 and 009

Erosion and Sediment Control & Stormwater Combined

- Sediment and Erosion Control Plan/ Construction Stormwater ROBES-2017-006 Received (EXPRESS REVIEW). Sediment and Erosion Control Plan/ Construction Stormwater ROBES-2017-006 Approved (EXPRESS REVIEW).
- ROBES-2018-001 Weatherspoon Plant Ash Reuse Project Approved.

H.F. Lee Power Station

Dam Safety

- Update of Emergency Action Plans letter from Duke received for Wayne-022.
- Annual Inspection reports, letters and comments to as-built (Wayne-009 - scope 1). COFA for WAYNE-009 - Scope 1 issued.
- Certificate of approval to repair Scope 5 - WAYNE-009 (outfall pipe point repair).
- Request for COFA - WAYNE-009-Scope 4 (proceed with emergency repairs to the dam breach) letter from Duke received.
- Comments to WAYNE-009 - scope 4 emailed to Central Office.
- WAYNE-009- scope 5 (outfall pipe repair) 10 days notification received.
- COFA for emergency repair at WAYNE-009 - scope 4.
- Response to notice of inspection letter from Duke received.
- Annual Inspection of WAYNE-009, WAYNE-022, 031 and 032.
- As-built inspection WAYNE-009 - Scope 1 (electrical distribution line in the crest of the Cooling Pond installation).

Erosion and Sediment Control - Nothing to report at this time

Asheville Power Station

Dam Safety

- Complete Annual inspection reports and sent NOIs for BUNCO-088, 098, and 097

Erosion and Sediment Control & Stormwater Combined – Nothing to report at this time