# Quarterly Report to the North Carolina General Assembly

# Coal Combustion Residuals Surface Impoundments

1st Quarter 2019



NORTH CAROLINA
DEPARTMENT OF ENVIRONMENTAL QUALITY



ROY COOPER Governor MICHAEL S. REGAN Secretary

# **Department of Environmental Quality**

# Regulatory Background

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. Specifically, General Statute (G.S.) 130A-309.204(a) states:

The Department shall submit quarterly written reports to the Environmental Review 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. The report shall also include an executive summary of each annual Surface Water Protection and Restoration Report submitted to the Department by the operator of any coal combustion residuals surface impoundments pursuant to G.S. 130A-309.212(e) and a summary of all surface water sampling, protection, and restoration activities related to the impoundment for the preceding year, including the status of the identification, assessment, and correction of unpermitted discharges from coal combustion residuals surface impoundments to the surface waters of the State. The Department shall supplement the written reports required by this subsection with additional written and oral reports as may be requested by the Environmental Review Commission. The Department shall submit the written reports required by this subsection whether or not the General Assembly is in session at the time the report is due.

## **Report Structure**

This report is broken down by North Carolina Department of Environmental Quality Divisions of Water Resources, Waste Management, and Energy, Mineral, and Land Resources. The information provided is either on-going or has occurred since the submittal of the previous quarterly report.



#### **Division of Water Resources**

**Duke Energy facilities with Surface Impoundments**. Division of Water Resources regulates Surface Impoundments in accordance with the Coal Ash Management Act (CAMA) as well as the General Statute 143-215, Control of Sources of Water Pollution; Permits Required and State Administrative Code 15A NCAC 2L Classification and Water Quality Standards Applicable to Groundwaters of the State.

# **General Status of Surface Impoundments:**

The following are general status notes for all facilities, except where stated.

#### Corrective Action Status

Individual site-specific status notes included in the next section.

# Prioritization and Closure Status [G.S. 130A-309.213]

Currently, all facilities are ranked either as high, intermediate, or low priority.

- Facilities classified as high-risk per Session Law 2014-122 Senate Bill 729 Section 3.(b) are:
  - o Asheville Steam Station
  - Dan River Combined Cycle Station
  - o Riverbend Steam Station
  - o L. V. Sutton Energy Complex

High-risk impoundments are required to be closed no later than December 31, 2019. Proposed plans were submitted by December 31, 2016.

- Facilities classified as intermediate-risk per Session Law 2016-95 House Bill 630 Section 3.(a) are:
  - o H. F. Lee Energy Complex
  - o Cape Fear Steam Electric Plant
  - o W. H. Weatherspoon Power Plant

These facilities have also been selected by Duke Energy for beneficiation under G.S. 130A-309.216. The Buck Combined Cycle Station has also been selected by Duke Energy for beneficiation but is currently classified as intermediate risk. Per G.S. 130A-309.216(c), sites selected for ash beneficiation projects shall be closed no later than December 31, 2029.

- Facilities classified as low risk per G.S. 130A-309.213 are:
  - o Allen Steam Station
  - o Belews Creek Steam Station
  - Buck Combined Cycle Station

- o James E. Rogers Energy Complex (formerly Cliffside Steam Station)
- Marshall Steam Station
- Mayo Steam Electric Plant
- o Roxboro Steam Electric Plant

On November 13, 2018, DEQ deemed that these facilities are low risk based on criteria under G.S. 130A-309.213(d)(1).

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.

# General Costs [G.S. 130-309.214(m)]

Costs are required to be included with the site closure plans and corrective action plans.

- Closure plans for the high-risk impoundments were submitted in January 2017 but were deemed incomplete by the North Carolina Department of Environmental Quality (DEQ). These plans included general cost estimates and were labeled confidential.
- Updated corrective action plans have yet to be submitted for all facilities.

# **Site Specific Actions of Surface Impoundments**

The following site-specific actions and status notes have occurred since the submittal of the previous quarterly report.

#### Acronyms

The following acronyms may be used in the remaining sections.

- CAP Corrective Action Plan
- CSA Comprehensive Site Assessment
- DEQ North Carolina Department of Environmental Quality
- DWR Division of Water Resources
- EMC Environmental Management Commission
- NPDES National Pollution Discharge Elimination System
- SOC Special Order by Consent

## Allen Steam Station

- Assessment and Corrective Action Status
  - October 8, 2018 DEQ established dates for Duke Energy to submit the following:
    - Closure plans August 1, 2019
    - Updated CAP for the impoundments and all sources hydrogeologically connected to the impoundments – December 1, 2019

- CSA for all sources not hydrogeologically connected to the impoundments

   March 31, 2020.
- December 21, 2018 DEQ approved optimization of the Interim Monitoring Plans for all Duke Energy coal ash facilities.
- o March 4, 2019 DWR Mooresville Regional Office approves soil assessment plan.

#### • Closure Status

- November 13, 2018 DEQ deemed that this facility is low risk based on criteria under G.S. 130A-309.213(d)(1). Therefore, the impoundments are required to be closed no later than December 31, 2029. A proposed closure plan must be submitted no later than December 31, 2019.
- NPDES permit NC0004979
  - No update for this quarter.
- SOC S17-009
  - o No update for this quarter.

## Asheville Steam Electric Plant

- Assessment and Corrective Action Status
  - December 21, 2018 DEQ approved optimization of the Interim Monitoring Plans for all Duke Energy coal ash facilities.
  - O Duke Energy has yet to submit the updated CSA Report. DEQ and Duke Energy are in the process of developing submittal dates.
- Closure Status
  - o 1964 Basin
    - Excavation of the impoundment in progress.
  - o 1982 Basin
    - Impoundment completely excavated.
- NPDES permit NC0000396
  - o Permit was issued November 8, 2018 and became effective December 1, 2018.
- SOC S17-010
  - No update for this quarter.

# Belews Creek Steam Station

- Assessment and Corrective Action Status
  - October 8, 2018 DEQ established dates for Duke Energy to submit the following:
    - Closure plans August 1, 2019
    - Updated CAP for the impoundments and all sources hydrogeologically connected to the impoundments – December 1, 2019
    - CSA for all sources not hydrogeologically connected to the impoundments

       March 31, 2020.
  - December 21, 2018 DEQ approved optimization of the Interim Monitoring Plans for all Duke Energy coal ash facilities.
- Closure Status

O November 13, 2018 – DEQ deemed that this facility is low risk based on criteria under G.S. 130A-309.213(d)(1). Therefore, the impoundments are required to be closed no later than December 31, 2029. A proposed closure plan must be submitted no later than December 31, 2019.

# • NPDES permit NC0024406

Draft permit was sent to public notice and the comment period ended July 30, 2018.
 Currently in draft.

# • SOC S18-004

No update for this quarter.

# **Buck Combined Cycle Station**

- Assessment and Corrective Action Status
  - o December 21, 2018 DEQ approved optimization of the Interim Monitoring Plans for all Duke Energy coal ash facilities.
  - o January 11, 2019 DEQ approves a Coal Pile Assessment Plan for the facility.
  - Duke Energy has yet to submit the updated CSA Report. DEQ and Duke Energy are in the process of developing submittal dates.

#### Closure Status

- O Per G.S. 130A-309.216, Duke Energy was required to identify, at a minimum, three sites for beneficial reuse. Along with the Cape Fear Steam Electric Plant, H.F. Lee Energy Complex, and the W. H. Weatherspoon Power Plan, the Buck Combined Cycle Station was additionally selected for beneficial reuse. G.S. 130A-309.216(c) states that sites selected for beneficiation projects must close by December 31, 2029.
- November 13, 2018 DEQ deemed that this facility is low risk based on criteria under G.S. 130A-309.213(d)(1). However, since Duke Energy selected this site for beneficial reuse, this site does not have to close until December 31, 2029.
- NPDES Permit NC0004774
  - No update for this quarter.
- SOC S18-004
  - No update for this quarter.

# Cape Fear Steam Electric Plant

- Assessment and Corrective Action Status
  - December 21, 2018 DEQ approved optimization of the Interim Monitoring Plans for all Duke Energy coal ash facilities.
  - o December 12, 2018 DEQ approved a Coal Pile Assessment Plan.
  - o January 31, 2019 DEQ approved a Surface Water Evaluation Plan.
  - O Duke Energy has yet to submit the updated CSA Report. DEQ and Duke Energy are in the process of developing submittal dates.

#### Closure Status

 Per G.S. 130A-309.216, Duke Energy was required to identify, at a minimum, three sites for beneficial reuse. The Cape Fear Steam Electric Plant was selected for beneficial reuse. G.S. 130A-309.216(c) states that sites selected for beneficiation projects must close by December 31, 2029.

- NPDES permit NC0003433
  - December 21, 2018 Major permit modification completed and became effective February 1, 2019.
- SOC number unassigned
  - No longer associated with SOC S18-006. Negotiations are underway for a separate SOC.

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

- Assessment and Corrective Action Status
  - October 8, 2018 DEQ established dates for Duke Energy to submit the following:
    - Closure plans August 1, 2019
    - Updated CAP for the impoundments and all sources hydrogeologically connected to the impoundments – December 1, 2019
    - CSA for all sources not hydrogeologically connected to the impoundments

       March 31, 2020.
  - December 21, 2018 DEQ approved optimization of the Interim Monitoring Plans for all Duke Energy coal ash facilities.
  - O Duke continues to assess a former coal ash storage area north of Broad River.
- Closure Status
  - o Inactive Units 1-4 are completely excavated. On August 10, 2018, DEQ approved the visual verification of CCR removal.
  - O November 13, 2018 DEQ deemed that this facility is low risk based on criteria under G.S. 130A-309.213(d)(1). Therefore, the impoundments are required to be closed no later than December 31, 2029. A proposed closure plan must be submitted no later than December 31, 2019.
- NPDES permit NC0005088
  - o No update this quarter.
- SOC S17-009
  - o No update this quarter.

# Dan River Combined Cycle Station

- Assessment and Corrective Action Status
  - December 21, 2018 DEQ approved optimization of the Interim Monitoring Plans for all Duke Energy coal ash facilities.
  - Duke Energy has yet to submit the updated CAP Report. DEQ and Duke Energy are in the process of developing submittal dates.
- Closure Status
  - o Excavation at the site is currently underway.
- NPDES permit NC0003468
  - No update this quarter.

# H. F. Lee Energy Complex

- Assessment and Corrective Action Status
  - December 21, 2018 DEQ approved optimization of the Interim Monitoring Plans for all Duke Energy coal ash facilities.
  - O Duke Energy has yet to submit the updated CSA Report. DEQ and Duke Energy are in the process of developing submittal dates.

#### Closure Status

O Per G.S. 130A-309.216, Duke Energy was required to identify, at a minimum, three sites for beneficial reuse. The H. F. Lee Energy Complex was selected for beneficial reuse. G.S. 130A-309.216(c) states that sites selected for beneficiation projects must close by December 31, 2029.

# • NPDES permit NC0003417

 November 2, 2018 – Draft permit was public noticed and the public comment period ended November 31, 2018. The Division intends on issuing the final permit in February 2019.

# • SOC S18-006

o January 10, 2019 – SOC was signed by the EMC.

## Marshall Steam Station

- Assessment and Corrective Action Status
  - October 8, 2018 DEQ established dates for Duke Energy to submit the following:
    - Closure plans August 1, 2019
    - Updated CAP for the impoundments and all sources hydrogeologically connected to the impoundments – December 1, 2019
    - CSA for all sources not hydrogeologically connected to the impoundments
       March 31, 2020.
  - o December 21, 2018 DEQ approved optimization of the Interim Monitoring Plans for all Duke Energy coal ash facilities.
  - o March 1, 2019 DWR Mooresville Regional Office approves soil assessment plan.

#### Closure Status

- O November 13, 2018 DEQ deemed that this facility is low risk based on criteria under G.S. 130A-309.213(d)(1). Therefore, the impoundments are required to be closed no later than December 31, 2029. A proposed closure plan must be submitted no later than December 31, 2019.
- NPDES permit NC0004987
  - o No update this quarter.
- SOC S17-009
  - No updates this quarter.

# Mayo Steam Electric Plant

- Assessment and Corrective Action Status
  - October 8, 2018 DEQ established dates for Duke Energy to submit the following:
    - Closure plans August 1, 2019
    - Updated CAP for the impoundments and all sources hydrogeologically connected to the impoundments – December 1, 2019
    - CSA for all sources not hydrogeologically connected to the impoundments
       March 31, 2020.
  - December 21, 2018 DEQ approved optimization of the Interim Monitoring Plans for all Duke Energy coal ash facilities.
  - o February 14, 2019 DEQ approved a Coal Pile Assessment Plan.
  - o March 7, 2019 DWR Raleigh Regional Office approves soil assessment plan.

## • Closure Status

- O November 13, 2018 DEQ deemed that this facility is low risk based on criteria under G.S. 130A-309.213(d)(1). Therefore, the impoundments are required to be closed no later than December 31, 2029. A proposed closure plan must be submitted no later than December 31, 2019.
- NPDES permit NC0038377
  - No update this quarter.
- SOC S18-005
  - No update this quarter.

# Riverbend Steam Station

- Assessment and Corrective Action Status
  - December 21, 2018 DEQ approved optimization of the Interim Monitoring Plans for all Duke Energy coal ash facilities.
  - Duke Energy has yet to submit the updated CAP Report. DEQ and Duke Energy are in the process of developing submittal dates.
- Closure Status
  - o Excavation at the site is currently underway.
- NPDES permit NC0004961
  - No update this quarter.
- SOC S16-005
  - No update this quarter.

#### Roxboro Steam Electric Plant

- Assessment and Corrective Action Status
  - October 8, 2018 DEQ established dates for Duke Energy to submit the following:
    - Closure plans August 1, 2019
    - Updated CAP for the impoundments and all sources hydrogeologically connected to the impoundments – December 1, 2019
    - CSA for all sources not hydrogeologically connected to the impoundments
       March 31, 2020.

 December 21, 2018 – DEQ approved optimization of the Interim Monitoring Plans for all Duke Energy coal ash facilities.

# Closure Status

O November 13, 2018 – DEQ deemed that this facility is low risk based on criteria under G.S. 130A-309.213(d)(1). Therefore, the impoundments are required to be closed no later than December 31, 2029. A proposed closure plan must be submitted no later than December 31, 2019.

# • NPDES permit NC0003425

o Currently in draft and waiting for submission to be re-public noticed.

# • SOC S18-005

No update this quarter.

# L. V. Sutton Energy Complex

- Assessment and Corrective Action Status
  - December 21, 2018 DEQ approved optimization of the Interim Monitoring Plans for all Duke Energy coal ash facilities.
  - O Duke Energy has yet to submit the updated CAP Report. DEQ and Duke Energy are in the process of developing submittal dates.

## • Closure Status

- o February 11, 2019 DEQ approved Duke Energy's visual confirmation of ash excavation in the 1971 Basin.
- o Excavation at the 1984 site is currently underway.

## • NPDES permit NC0001422

No update this quarter.

# W. H. Weatherspoon Power Plant

- Assessment and Corrective Action Status
  - December 21, 2018 DEQ approved optimization of the Interim Monitoring Plans for all Duke Energy coal ash facilities.
  - Duke Energy has yet to submit the updated CSA Report. DEQ and Duke Energy are in the process of developing submittal dates.

#### Closure Status

O Per G.S. 130A-309.216, Duke Energy was required to identify, at a minimum, three sites for beneficial reuse. The W. H. Weatherspoon Power Plant was selected for beneficial reuse. G.S. 130A-309.216(c) states that sites selected for beneficiation projects must close by December 31, 2029.

## • NPDES permit NC0005363

o Permit was issued August 3, 2018 and became effective November 1, 2018.

## • SOC number unassigned

 No longer associated with SOC S18-006. Negotiations are underway for a separate SOC.

# **Annual Groundwater Protection and Restoration Report Summary**

The Annual Groundwater Protection and Restoration Reports have been uploaded to the DEQ website <a href="https://edocs.deq.nc.gov/WaterResources/Browse.aspx?startid=221202&dbid=0&cr=1">https://edocs.deq.nc.gov/WaterResources/Browse.aspx?startid=221202&dbid=0&cr=1</a>. 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.

# **Annual Surface Water Protection and Restoration Report Summary**

The Annual Surface Water Protection and Restoration Reports have been uploaded to the DEQ website <a href="https://edocs.deq.nc.gov/WaterResources/Browse.aspx?startid=221202&dbid=0&cr=1.">https://edocs.deq.nc.gov/WaterResources/Browse.aspx?startid=221202&dbid=0&cr=1.</a>
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**

**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 (current coal fired)

- 3612-INDUS-2008: Retired Ash Basin Landfill (open, double-lined, landfill constructed on top of retired ash basin)
  - o Cell 2B currently receiving coal ash
  - o Inspected 1/23/19
  - Leachate from RAB LF now routed to Lined Retention Basin (i.e., no longer sent to the ash basin)

# Belews Creek Steam Station – Stokes County (current coal fired)

- **8503-INDUS-1984**: Pine Hall Road Landfill (closed, unlined composite cap system)
  - o Inspected 2/23/18
  - O Groundwater Assessment: assessment request letter issued 11/9/11, assessment work plan submitted 2/9/12, work plan approval issued 3/23/12, assessment report submitted 10/1/12, final approval of assessment report 5/2/16
- 8504-INDUS-2007: Craig Road Landfill (open, lined)
  - o Permit to Operate (PTO), renewal issued 11/28/17
  - Paste Demonstration Project for bromide sequestration authorized 8/18/17, has been placed on hold pending additional information from the Division of Water Resources.
  - O Groundwater Assessment: assessment request letter issued 11/9/11, work plan submitted 2/9/12, work plan approved 3/23/12, assessment report submitted 12/21/12, final assessment approval 5/2/16
  - o Small slope failure, incident report submitted 10/15/18, repairs completed
  - o Inspected 10/16/18
- 8505-INDUS-2008: Flue Gas Desulfurization (FGD) Landfill (open, lined)
  - o The facility has been mining gypsum from landfill to meet wallboard production needs, thus increasing landfill capacity, since June 2015
  - o PTO issued 11/28/17
  - O Groundwater Assessment: assessment request letter issued 11/9/11, work plan submitted 2/9/12, work plan approved 3/23/12, assessment report submitted 10/5/12, assessment response issued 11/28/12, approved additional assessment work plan 11/7/16; approved amendment to work plan on 2/24/17; assessment report submitted 5/31/17; DWM Solid Waste Section concurrence 8/21/17. Revised report to assessment report issued 4/25/18. Currently still undergoing assessment.
  - o Inspected 2/23/18

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

- 7906-INDUS-2016: CCR Landfill (open, lined)
  - o PTO, Permit to Construct (PTC) issued 10/26/16
  - o Coal Ash Management Act requires basin ash removal by 12/31/19.
  - o Basin ash to Waste Management Landfill, Jetersville, VA and to Roanoke Cement, Troutville, VA for concrete production, contract completed June 2017.
  - o Cell 1 Operation authorized on 5/30/17
  - o First load of ash disposed in Cell 1 on 5/31/17
  - o Cell 2 Operation authorized on 10/2/17
  - o Pre-Operations Meeting for Cell 3 was held on 5/8/18
  - o Small slope failure, incident report submitted 5/17/18, repairs completed
  - o Inspected 11/28/18
  - o Use of lime-based ash drying agents authorized through 1<sup>st</sup> Qtr. 2019

# Mayo Steam Electric Plant – Person County (current coal fired)

- 7305-INDUS-2012: CCR Landfill (open, double lined)
  - Groundwater Assessment: workplan submitted on 12/31/17 and revised on 2/23/17; workplan approval issued 3/22/17; groundwater assessment status letter submitted 1/17/18; response to status letter issued 1/26/18; additional assessment workplan submitted 7/20/18
  - o Inspected 1/28/19 and 1/30/19
  - Leachate storage issue being investigated.
  - o Leachate release on 1/25/19.

## Marshall Steam Station – Catawba County (current coal fired)

- **1804-INDUS-1983**: Dry Ash Landfill (closed, unlined)
  - o Inspected 1/23/19
  - o Groundwater Assessment: assessment request letter issued 11/9/11, assessment workplan submitted 2/9/12, workplan approval issued 3/23/12, assessment report issued 7/12/12, final assessment approval issued 5/2/16
- 1809-INDUS: FGD Landfill (closed, lined)
  - Last received waste on 10/16/15
  - o PTO renewal issued 12/20/16
  - o Revised Closure and Post-Closure Plan approved on 3/5/18
  - o Inspected 4/24/18
  - o Closure Cap construction nearing completion.
  - o Groundwater Assessment: assessment request letter issued 11/9/11, assessment workplan submitted 2/9/12, workplan approval issued 2/20/12, assessment report issued 12/21/12, final assessment approval issued 5/2/16
  - Leachate from FGD now routed to Lined Retention Basin (i.e., no longer sent to the ash basin)
- 1812-INDUS-2008: Industrial Landfill #1 (open, double-lined)
  - o Inspected 1/23/19

- Leachate from ILF#1 now routed to Lined Retention Basin (i.e., no longer sent to the ash basin)
- o Phase #1, cells 1, 2, 3 and 4 constructed and in operations
- Structural Fill CCB0031
  - Stormwater rerouting project is underway, completion scheduled for 2<sup>nd</sup> quarter 2019.

# Rogers Energy Complex – Rutherford County

- 8106-INDUS-2009: CCR Landfill (open, lined)
  - o PTO Phase I and II issued June 2016
  - o Facility announced the use of natural gas as
  - o Inspected 1/23/19
  - o Approval of Phase 3 & 4 piezometer installation plan issued 7/13/18

# <u>Roxboro Steam Electric Plant – Person County (current coal fired)</u>

- 7302-INDUS-1988: CCR Landfill (open, lined, constructed partially on top of retired ash basin)
  - o PTO Vertical Expansion Phase 6 completed 12/20/16
  - o Groundwater Assessment: assessment request letter issued 6/29/16; assessment response/report submitted 9/28/16; final assessment approval issued 6/23/17
  - o Inspected 10/1/18 and 11/14/18

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

- 6512-INDUS-2016: CCR Landfill (open, lined)
  - o PTC issued September 2016
  - o CAMA requires basin ash removal by 12/31/19
  - o Basin ash via rail to the Brickhaven Structural Fill (1910-STRUC-2015) stopped when landfill operations began
  - $\circ$  First load of ash disposed in Cell 3 7/7/17
  - $\circ$  First load of ash disposed in Cell 4 9/11/17
  - o Cell 5 Operation approved 12/4/17
  - o Cell 6 Operation approved 2/7/18
  - o Cells 7 and 8 Pre-Operation meeting 5/16/18
  - o Cells 7 and 8 Operations approved 5/16/18
  - o Significant slope failures from Hurricane Florence reported 9/15/18
  - o Inspected 12/12/18
  - o Cell 6 Daily Leakage Rate Exceedance reported 12/19/18

# Landfill off-site of power industry

<u>Halifax County Industrial Landfill – Halifax County</u> Westmoreland Partners, Roanoke Valley Energy Plant (intermittently active coal-fired plant)

- 4204-INDUS-1994: Halifax County Coal Ash Landfill (open/inactive, lined)
  - o Inspected 6/20/18
  - o Halifax County is coordinating with Westmoreland on closure of the landfill.

# o Closure activities began 10/31/18

#### **Duke facilities without landfills**

<u>Asheville Steam Electric Plant - Buncombe County</u> (Duke Energy submitted plans to convert to combined cycle turbine to the N.C. Utilities Commission for approval in 2015.)

- The Asheville Airport Structural Fill DWR Distribution of Residual Solids (DORS) Permit #WQ0000452 has been used to construct three structural fills at the Asheville Airport.
- CAMA requires basin ash removal by 12/31/19
- Ash excavation from 1982 basin completed in September 2016. Basin ash was sent by truck to the Rodgers Steam Plant and ended September 2016.
- Plant and basin (1964 Basin) ash sent by truck to Waste Management's Homer, GA landfill

<u>Buck Steam Station – Rowan County</u> (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

<u>Cape Fear Steam Electric Plant – Chatham County</u> (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

<u>H.F. Lee Steam Electric Plant – Wayne County</u> (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

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

- CAMA requires basin ash removal by 12/31/19
- Dry stack and basin ash via rail to Brickhaven Structural Fill (1910-STRUC-2015)
- Approximately 4.3 million tons of ash excavated as of April 2018
- Approximated completion of excavation March 2019

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

• Basin ash trucked to beneficial reuse facilities in South Carolina began in 9/13/17. More than 357,000 tons excavated for reuse as of February 2019. Excavation basin ash is being sent to the Holcim facility in Holly Hill, SC and the Argos USA facility in Harleyville, SC.

**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 allowed from any Duke plant)
- Owned/operated by Charah, Inc.
- The structural fill is permitted for an approximate footprint of 145 acres in size when completed and capacity of 12.5 million tons of ash airspace; the expected life of facility if all airspace is used is approximately eight years.
- Ash received from Sutton and Riverbend
- PTC/PTO issued 6/5/15: ash sent by truck (October 2015) and by rail (March 2016).
- Last train load from Sutton on 6/27/17
- Partial closure of Cell 1 18 acres closed
- Inspection 1/31/19
- More than 6 million tons of ash has been placed in the structural fill in Cells 1, 2, and 6 as of March 2018
- When excavation activities conclude from Riverbend in spring 2019, partial closure will begin.

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

- Beneficial reuse mine reclamation (ash allowed from any Duke plant)
- Owned/operated by Charah, Inc.
- Spans 118 acres, holds 8.87 million tons of ash.
- PTC issued on 6/5/15. Construction has not started.

## 1117-STRUC-, Asheville Airport Area 2 – Buncombe County

- Area 2 PTO application withdrawn.
- Areas 1, 3 and 4 constructed (DWR DORS Permit #WQ0000452)
- Field Assessment of structural fill cap for Area 2 conducted 5/2/18
- DWR will continue to be lead for the site; DWM will assist as needed

Inventory of structural fills per Session Law 2014 122: <a href="http://deq.nc.gov/about/divisions/waste-management/solid-waste-section/coal-combustion-byproducts">http://deq.nc.gov/about/divisions/waste-management/solid-waste-section/coal-combustion-byproducts</a>.

#### Groundwater assessment and corrective action at structural fills

Roxboro Steam Station Gypsum Storage Pad (CCB0003)

- Groundwater Assessment: assessment work plan submitted 11/20/16; work plan approval issued 12/6/16; assessment report submitted 6/28/17
- Assessment ongoing

# Belews Creek Steam Station Structural Fill (CCB0070)

- Groundwater Assessment: assessment work plan submitted 11/7/16; work plan approval issued 12/7/16; additional assessment approval (installation of well clusters) issued 5/26/17; time extension of assessment approval issued 12/15/17; Groundwater Assessment Report submitted 1/5/18; response to assessment report issued 1/23/18
- Assessment ongoing

# Swift Creek in Nash County (CCB0057)

- Corrective Action initiated Spring 2017
- In situ metals and dust sampling conducted 9/6/17
- Corrective action project complete December 2017
- Final Cover and seeding completed January 2018

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

- Surface water Assessment ongoing by Division of Water Resources. Notice of Violation issued on 10/21/16 for impacts to wetlands and surface water
- Surface water sampling was conducted in Spring 2017 and 2018.

# Historic Ash Management Area

# 6806-INDUS- Eno Power Plant – historic coal ash storage area

- Inspection/Site Visit was performed on 4/16/18
- Added to inventory database on 4/30/18
- Sampling and Analysis Plan approved 8/20/18
- Site Assessment Action Plan submitted 9/11/18
- Site Assessment Action Plan approved 1/4/19

# 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 Storm Water Program under the authority of multiple Session Laws along with their associated Administrative Code.

## **Allen Steam Station**

# Dam Safety

- GASTO-016, -061 inspected 10/4/2018 periodic.
- GASTO-324 Allen Retention Basin Dam as-built inspection 10/18/2018.
- GASTO-016, 061 NOIs sent 11/15/2018.
- Received a submittal to construct a new retention basin dam (GASTO-324) on June 14, 2017. Certificate of Approval to Construct for Phase 1 issued October 30, 2017. Certificate of Approval to Construct for Phase 2 issued April 10, 2018. Interim Approval to Impound issued June 20, 2018. Extension to Interim Approval to Impound issued December 7, 2018. "As-Built" drawings received December 17, 2018. "As-Built" inspection performed December 18, 2018. Certificate of Final Approval issued December 19, 2018.

# Erosion and Sediment Control and Construction Storm Water

- GASTO-2009-001, GASTO-2017-015, GASTO-2018-013, GASTO-2018-015, GASTO-2018-027, GASTO-2019-002 inspected 10/4/2018-compliant.
- GASTO-2017-015, GASTO-2019-002 inspected 12/18/2018-compliant.

## NPDES Storm Water

• Nothing to report at this time.

# **Buck Steam Station**

#### Dam Safety

- ROWAN-047, -068, 069, 070, 071, 072 inspected 10/17/2018-periodic.
- ROWAN-047, 068, 069, 070, 071 NOIs sent 11/21/2018.
- Received a submittal to install a water treatment system pad electrical distribution line on the crest of Main Ash Basin Dam 3 (ROWAN-047) on December 13, 2018. A revision request letter was issued January 2, 2019. Certificate of Approval to Repair issued January 23, 2019.
- Received a submittal to install a water treatment system pad electrical distribution line on the crest of Ash Basin Divider Dam (ROWAN-071) on December 13, 2018. A revision request letter was issued January 2, 2019. Certificate of Approval to Repair issued January 23, 2019.

# Erosion and Sediment Control and Construction Storm Water

- ROWAN-2019-004 Revised A/M issued 10/9/2018.
- ROWAN-2014-007, ROWAN-2015-006, ROWAN-2015-004, ROWAN-2015-017, ROWAN-2017-001, ROWAN2017-003, ROWAN-2017-011, ROWAN-2018-001, ROWAN-2018-004 inspected 10/17/2018, compliant.
- ROWAN-2019-012 Buck Final Grading Plan for Decommissioning Stockpile Addition A/M issued 11/14/2018.
- ROWAN-2019-013 Wastewater Retention Basin, Phase 1 Stockpile Removal A/M issued 11/16/2018.

#### NPDES Storm Water

• Nothing to report at this time.

# **Cliffside Steam Station**

# **Dam Safety**

- CLEVE-047, 049, 053, 054, RUTHE-070, 072 inspected 10/23/2018-periodic
- CLEVE-047, -049, -050, RUTHE-070, -072 NOIs sent 11/21/2018.
- Received a submittal to construct a new retention basin dam (CLEVE-047) on September 26, 2017. Certificate of Approval to Modify for Phase 1 issued October 30, 2017. Certificate of Approval to Modify for Phase 2 issued April 10, 2018. Interim Approval to Impound issued June 12, 2018. Extension to Interim Approval to Impound issued December 7, 2018. "As-Built" drawings received February 5, 2019. "As-Built" inspection performed March 5, 2019. Certificate of Final Approval issued March 7, 2019.
- Received a submittal to repair area of wetness at toe of Active Ash Basin Upstream Dam (CLEVE-050) on February 25, 2019.

## Erosion and Sediment Control and Construction Storm Water

• CLEVE-2017-018, CLEVE-2018-028, CLEVE-2018-043 inspected 10/23/2018-compliant. CLEVE-2017-018 revised A/M issued 10/9/2018.

## NPDES Storm Water

• Nothing to report at this time.

# **Marshall Steam Station**

## Dam Safety

- CATAW-054 inspected 10/2/2018-periodic.
- CATAW-075 Marshall Holding Basin Dam & CATAW-076 Marshall Retention Basin Dam 10/18/2018 As-built inspections.
- NOIs for CATAW-054 sent 11/15/2018.

## Erosion and Sediment Control and Construction Storm Water

- CATAW-2017-014 revised A/M issued 11/14/2018.
- CATAW-2019-009 MAR-145 Marshall Structural Fill Stormwater Reroute Piping issued 12/14/2018.

- CATAW-2018-011, CATAW-2016-010, CATAW-2017-013, CATAW-2017-017 inspection 10/2/2018 closed. CATAW-2004-047, CATAW-2017-014, CATAW-2017-019, CATAW-2018-016 inspected 10/2/2018-compliant.
- CATAW-2017-014 inspected 12/18/2018-compliant.

#### NPDES Storm Water

• Nothing to report at this time.

# **Riverbend Steam Station**

# Dam Safety -

• Nothing to report at this time.

# Erosion and Sediment Control and Construction Storm Water

• GASTO-2019-001 inspected 10/4/2018-compliant.

# NPDES Storm Water

• Nothing to report at this time.

## **Belews Creek Steam Station**

# Dam Safety

- Received submittal on STOKE-116 Scope 6 on July 21, 2017. Certificate of Approval to Repair issued August 18, 2017. "As-Built" drawings received January 21, 2019. "As-Built" inspection performed February 19, 2019. Certificate of Final Approval issued February 20, 2019.
- Received submittal on STOKE-116 Scope 8 on October 24, 2018. Certificate of Approval to Repair issued December 27, 2018.
- Received submittal on STOKE-117 Scope 3 on December 29, 2016. Revision request letter issued July 21, 2017. Certificate of Approval to Repair issued November 30, 2017. "As-Built" drawings received December 20, 2018. "As-Built" inspection performed February 19, 2019.
- Received a submittal to construct a new holding basin dam (STOKE-120) on August 31, 2017. Certificate of Approval to Construct issued September 21, 2017. Interim Approval to Impound issued May 24, 2018. Extension of Interim Approval to Impound issued January 31, 2019. "As-Built" drawings received February 6, 2019. "As-Built" inspection performed February 19, 2019. Certificate of Final Approval issued February 20, 2019.
- Received a submittal to construct a new retention basin dam (STOKE-121) on January 22, 2018. Certificate of Approval to Construct issued April 18, 2018. Interim Approval to Impound issued May 24, 2018. Extension of Interim Approval to Impound issued November 27, 2018. Extension of Interim Approval to Impound 2 issued January 31, 2019. "As-Built" drawings received February 6, 2019. "As-Built" inspection performed February 19, 2019. Certificate of Final Approval issued February 20, 2019.

 Received a submittal for installation of a monitoring flume for Belews Lake Dam (ROCKI-236) on November 1, 2017. Certificate of Approval to Repair issued February 5, 2018. "As-Built" drawings received March 6, 2019.

## Erosion and Sediment Control and Construction Storm Water

• Nothing to report at this time.

#### NPDES Storm Water

• Nothing to report at this time.

# **Dan River Steam Station**

# Dam Safety

- Received a submittal for dam decommissioning sequence C for Active Primary Ash Basin Dam (ROCKI-237) on December 18, 2018.
- o Received a submittal for dam decommissioning sequence C for Active Secondary Ash Basin Dam (ROCKI-238) on December 18, 2018.
- Received a submittal for Scope 1 of the Low Head Diversion Dam (ROCKI-239) to install post-tensioned anchors on January 8, 2019. Received a submittal for Scope 2 to install a concrete bulkhead on January 9, 2019.

## Erosion and Sediment Control and Construction Stormwater

• Stormwater Permit #NCS000572 inspected on 12/3/2018. In compliance.

## NPDES Storm Water

• Nothing to report at this time.

## **Sutton Power Station**

# Dam Safety

Acceptance of Withdrawal for Scope 1 of the 1972 Cooling Lake Dam (NEWHA-003) issued February 20, 2019. Acceptance of Withdrawal for Scope 2 issued February 20, 2019. Notice to proceed with repairs from Hurricane Florence damage issued December 11, 2018. "As-Built" drawings received February 11, 2019.

# Erosion and Sediment Control and Construction Storm Water

• Nothing to report at this time.

## NPDES Storm Water

- o Issued approval for installation of instrumentation for the Active Ash Basin (CATAW-054) on June 20, 2018. "As-Built" drawings received March 4, 2019.
- Received a submittal to construct a new holding basin dam (CATAW-075) on June 21, 2017. Certificate of Approval to Construct issued October 30, 2017.
   Interim Approval to Impound issued June 6, 2018. Extension of Interim Approval to Impound issued November 27, 2018. "As-Built" drawings received December

- 17, 2018. "As-Built" inspection performed December 18, 2018. Certificate of Final Approval issued December 19, 2018.
- Received a submittal to construct a new retention basin dam (CATAW-076) on June 21, 2017. Certificate of Approval to Construct issued October 30, 2017.
   Interim Approval to Impound issued June 6, 2018. "As-Built" drawings received December 17, 2018. "As-Built" inspection performed December 18, 2018.
   Certificate of Final Approval issued December 19, 2018.

# **Cape Fear Power Station**

# **Dam Safety**

- Received a submittal for vegetation removal of the 1978 Ash Pond Dam (CHATH-078) on September 20, 2017. Certificate of Approval to Repair issued November 30, 2017. "As-Built" drawings received July 16, 2018. "As-Built" inspection performed March 6, 2019. Certificate of Final Approval issued March 7, 2019.
- An inspection of an initially reported sink hole on the 1985 Ash Pond Dam (CHATH-079) was performed February 7, 2019. Area was slightly caved-in but more closely resembled animal burrow hole collapse. Repairs were to proceed as part of O&M.
- Annual inspection of Cape Fear coal ash dams performed March 6, 2019. No major issues found.

# Erosion and Sediment Control and Construction Storm Water

• Nothing to report at this time.

# NPDES Storm Water

• Nothing to report at this time.

# **Mayo Power Station**

#### Dam Safety

- Received a submittal to construct a new FGD retention pond dam (PERSO-049) on April 20, 2017. Certificate of Approval to Construct for Phase 1 issued November 17, 2017. Certificate of Approval to Construct for Phase 2 issued April 18, 2018. Interim Approval to Impound issued July 6, 2018. Extension of Interim Approval to Impound issued December 11, 2018.
- Received a submittal to construct a new retention basin dam (PERSO-050) on June 6, 2018. Certificate of Approval to Construct for Phase 1 issued July 12, 2018. Interim Approval to Impound issued July 6, 2018. Extension of Interim Approval to Impound issued December 11, 2018.

# Erosion and Sediment Control and Construction Storm Water

• Nothing to report at this time.

## NPDES Storm Water

• Nothing to report at this time.

## **Roxboro Power Station**

# **Dam Safety**

- o Received a submittal to remedy issues brought up in an N.O.D. (minor cracks in spillway) for Lake Hyco Dam (PERSO-002) on January 16, 2019.
- Received a submittal to modify the lower bench for piping installation for East
  Ash Basin Dam (PERSO-033) on December 19, 2017. Certificate of Approval to
  Repair issued March 19, 2018. "As-Built" drawings received February 26, 2019.
  "As-Built" inspection performed February 27, 2019. Certificate of Final Approval
  issued March 7, 2019.
- Received a submittal to construct a new holding basin dam (PERSO-047) on June 2, 2017. Certificate of Approval to Construct issued November 21, 2017. Interim Approval to Impound issued June 12, 2018. Extension of Interim Approval to Impound issued December 11, 2018. "As-Built" drawings received February 12, 2019. "As-Built" inspection performed February 27, 2019. Certificate of Final Approval issued February 28, 2019.
- Received a submittal to construct a new retention basin dam (PERSO-048) on April 4, 2018. Certificate of Approval to Construct issued April 18, 2018. Interim Approval to Impound issued June 12, 2018. Extension of Interim Approval to Impound issued December 11, 2018. "As-Built" drawings received February 12, 2019. "As-Built" inspection performed February 27, 2019. Certificate of Final Approval issued February 28, 2019.

## Erosion and Sediment Control and Construction Storm Water

• Nothing to report at this time.

#### NPDES Storm Water

• Nothing to report at this time.

## Brickhaven No 2. Tract "A" 19-08

# **Mining**

• On 9-28-2018, Follow up inspection post hurricane Florence due to a report of flooding in the vicinity of the mine. Water from the sediment basin topped and flooded the downstream parking area of the Charrah Brickhaven 2A site. No evidence of sediment deposits was noted. Additional vegetation was needed on perimeters of the site but otherwise the site was operating in accordance with their permit.

#### Erosion and Sediment Control and Construction Storm Water

• Nothing to report at this time.

## NPDES Storm Water

• Nothing to report at this time.

# **Colon Mine Permit 53-05**

# **Mining**

• No mining has started at this site. No change from previous inspection.

## Erosion and Sediment Control and Construction Storm Water

• Nothing to report at this time.

# NPDES Storm Water

• Nothing to report at this time.

# **Weatherspoon Power Station**

# **Dam Safety**

- Certificate of Final Approval to install instrumentation on Weatherspoon Cooling Lake Dam ROBES-004 Dated 2-7-2019 Received 2-19-2019
- Received a submittal to install CAMA rule groundwater monitoring wells on the Cooling Lake Dam (ROBES-004) on April 19, 2018. Certificate of Approval to Install Instrumentation issued April 19, 2018. Received "As-Built" drawings on July 19. 2018. Performed "As-Built" inspection on November 29, 2018. Certificate of Final Approval issued February 12, 2019.
- Received a request to extend the Certificate of Approval to Repair issued January 19, 2017 on October 24, 2018 on the 1979 Ash Basin Dam (ROBES-009) for vegetation removal pending removal of dam for beneficiation. Extension of Certificate of Approval to Repair issued February 5, 2019.
- Received a submittal to remove an abandoned sluice line near the crest of the 1979 Ash Basin Dam (ROBES-009) on August 9, 2018. A revision request letter was issued October 29, 2018. Certificate of Approval to Repair issued March 4, 2019.

# Erosion and Sediment Control and Construction Storm Water

• Nothing to report at this time.

## NPDES Storm Water

• Nothing to report at this time.

# **H.F.** Lee Power Station

## Dam Safety-

- October 9, 2018 Approval to Repair Extension 2, Scope 3 addendum 2 for Wayne-022 (Active Ash Basin) letter received;
- December 6, 2018 Thom Edgerton Annual Inspection of Dams at HF Lee.

## Erosion and Sediment Control and Construction Storm Water

- October 10, 2018 Triangular Pond Decommissioning E&S received.
- October 8, 2018 Triangular Pond Decommissioning E&S approval issued.

- November 20, 2018 HF Lee Ash Benefication Facility E&S revision received.
- December 3, 2018 HF Lee Ash Benefication Facility E&S revision disapproved.
- December 10, 2018 WAYNE-2016-008 E&S Vegetation Stabilization project at Active ash basin inspected and closed out.
- November 16, 2018 HF Lee Bridge Improvements E&S received.
- December 14, 2018 HF Lee Bridge Improvements E&S approved.
- December 21, 2018 HF Lee Ash Benefication Facility E&S revision received.
- December 27, 2018 HF Lee Ash Benefication Facility E&S approval issued.
- Wayne-2018-035 Ash Benefication facility sediment breach (small quantity) reported by Steve Cahoon inspected on December 6, 2018 (cleaned up)
- Wayne-2019-016 HF Lee Bridge improvements: received January 9, 2019, approved January 22, 2019.

## NPDES Storm Water

• Nothing to report at this time.

# **Asheville Power Station**

# Dam Safety

Received submittal for Scope 7 – Principal Spillway abandonment on the 1964
 Ash Basin (BUNCO-097) on September 5, 2018. Certificate of Approval for
 Repair issued on October 3, 2018. Received "As-Built" drawings on March 6,
 2019.

# Erosion and Sediment Control and Construction Storm Water

• Nothing to report at this time.

# NPDES Storm Water

• Nothing to report at this time.

# **Dam Status**

Plant Name	NAME	NC STATE-	DAM STATUS
		ID	
Allen Steam Station	Allen Active Ash Basin Dam	GASTO-061	ACTIVE
Allen Steam Station	Allen Inactive Ash Basin Dam	GASTO-016	INACTIVE
Allen Steam Station	Allen Retention Basin Dam	GASTO-324	ACTIVE
Asheville Steam	Lake Julian Dam	BUNCO-088	ACTIVE
Electric Plant			
Asheville Steam	Asheville 1982 Ash Pond	BUNCO-089	DECOMISSIONED
Electric Plant	Dam		
Asheville Steam	Asheville 1964 Ash Pond	BUNCO-097	ON-GOING
Electric Plant	Dam		DECOMISSION
Asheville Steam	Asheville Lined Retention	BUNCO-TBD	ON-GOING
Electric Plant	Basin Dam		CONSTRUCTION

Belews Creek Steam	Belews Creek Active Ash	STOKE-116	ACTIVE
Station	Basin Dam		
Belews Creek Steam	Belews Lake Dam	ROCKI-236	ACTIVE
Station			
Belews Creek Steam	Belews Lake Saddle Dike #1	STOKE-117	ACTIVE
Station	Dam		
Belews Creek Steam	Belews Lake Saddle Dike #2	STOKE-118	ACTIVE
Station	Dam		
Belews Creek Steam	Belews Lake Saddle Dike #3	STOKE-119	ACTIVE
Station	Dam		
Belews Creek Steam	Belews Lake Saddle Dike #4	ROCKI-235	ACTIVE
Station	Dam		
Belews Creek Steam	Belews Creek Chemical Pond	STOKE-115	ACTIVE
Station	Dam		
Belews Creek Steam	Belews Creek Retention Basin	STOKE-121	ACTIVE
Station	Dam		
Belews Creek Steam	Belews Creek Holding Basin	STOKE-120	ACTIVE
Station	Dam		
Buck Combined	Buck Main Ash Basin Dam	ROWAN-047	ACTIVE
Cycle Station			
Buck Combined	Buck Ash Basin #1 Dam	ROWAN-068	ACTIVE
Cycle Station			
Buck Combined	Buck Basin #1 to Basin #2	ROWAN-069	ACTIVE
Cycle Station	Dam		
Buck Combined	Buck Basin #2 to Basin #3	ROWAN-070	ACTIVE
Cycle Station	Dam		
Buck Combined	Buck Ash Basin Divider Dam	ROWAN-071	ACTIVE
Cycle Station			
Buck Combined	Buck Fuel Containment Dam	ROWAN-072	ACTIVE
Cycle Station			
Buck Combined	Buck Beneficial Ash Wet	ROWAN-TBD	ON-GOING
Cycle Station	Pond		CONSTRUCTION
Buck Combined	Buck Beneficial Ash Dry	ROWAN-TBD	ON-GOING
Cycle Station	Pond		CONSTRUCTION
Cape Fear Steam	Buckhorn Lake Dam	CHATH-022	ACTIVE
Electric Plant			
Cape Fear Steam	Cape Fear 1956 Ash Pond	CHATH-075	INACTIVE
Electric Plant	Dam		
Cape Fear Steam	Cape Fear 1963 Ash Pond	CHATH-076	INACTIVE
Electric Plant	Dam		
Cape Fear Steam	Cape Fear 1970 Ash Pond	CHATH-077	INACTIVE
Electric Plant	Dam		
Cape Fear Steam	Cape Fear 1978 Ash Pond	CHATH-078	INACTIVE
Electric Plant	Dam	CITA TITE CONT	A COTTON
Cape Fear Steam	Cape Fear 1985 Ash Pond	CHATH-079	ACTIVE
Electric Plant	Dam		

C F C	G F FI 1G / 1D	CILATII 000	ACTIVE
Cape Fear Steam Electric Plant	Cape Fear Flood Control Dam (Exempted by HB 119 (L))	CHATH-080	ACTIVE
James E. Rogers	Cliffside River Dam	CLEVE-053	ACTIVE
Energy Complex	(Exempted by HB 119 (L))		
(Cliffside Steam			
Station)			
James E. Rogers	Cliffside Inactive Ash Basin	RUTHE-070	INACTIVE
Energy Complex	#5 Main Dam	110 1112 0 7 0	
(Cliffside Steam			
Station)			
James E. Rogers	Cliffside Inactive Ash Basin	RUTHE-072	INACTIVE
Energy Complex	#5 Saddle Dam	ROTTIL 072	HWICHVE
(Cliffside Steam	#5 Saddle Dain		
Station)			
James E. Rogers	Cliffside Active Ash Basin	CLEVE-050	ACTIVE
Energy Complex	Upstream Dam	CLEVE-050	ACTIVE
(Cliffside Steam	Opsiream Dam		
Station)			
James E. Rogers	Cliffside Active Ash Basin	CLEVE-049	ACTIVE
Energy Complex	Downstream Dam	CLE V E-049	ACTIVE
(Cliffside Steam	Downstream Dam		
Station)			
	Cliffside Retention Basin	CLEVE-047	ACTIVE
James E. Rogers		CLEVE-04/	ACTIVE
Energy Complex (Cliffside Steam	Dam (Formerly Inactive Ash Basin #1-4 Main Dam)		
`	Basin #1-4 Main Dain)		
Station)	Cliffside Active Ash Basin	CLEVE-054	ACTIVE
James E. Rogers	Internal Dam	CLEVE-034	ACTIVE
Energy Complex	Internal Dam		
(Cliffside Steam			
Station)  Dan River Combined	Dan Birran Antirra Brimanny	ROCKI-237	ON-GOING
Cycle Station	Dan River Active Primary Ash Basin Dam	ROCKI-23/	DECOMISSION
		DOCKI 229	
Dan River Combined	Dan River Active Secondary Ash Basin Dam	ROCKI-238	ON-GOING DECOMISSION
Cycle Station			
Dan River Combined	Dan River Service Water	ROCKI-241	ACTIVE
Cycle Station	Settling Pond Dam		
Dan River Combined	Dan River Low Head	ROCKI-239	ACTIVE
Cycle Station	Diversion Dam		
H.F. Lee Energy	H.F. Lee Cooling Lake Dam	WAYNE-009	ACTIVE
Complex			
H.F. Lee Energy	H.F. Lee Active Ash Basin	WAYNE-022	ACTIVE
Complex	Dam		
H.F. Lee Energy	H.F. Lee Inactive Ash Basin 1	WAYNE-031	INACTIVE
Complex	Dam		
H.F. Lee Energy	H.F. Lee Inactive Ash Basin 2	WAYNE-032	INACTIVE
Complex	Dam		

H.F. Lee Energy	H.F. Lee Inactive Ash Basin 3	WAYNE-033	INACTIVE
Complex	Dam		
H.F. Lee Energy	H.F. Lee Permanent	WAYNE-TBD	ACTIVE
Complex	Stormwater Pond Dam	****	A COMPANIE
H.F. Lee Energy	H.F. Lee Triangular Pond	WAYNE-034	ACTIVE
Complex	Dam	CATAWOTA	A CITILITY
Marshall Steam	Marshall Active Ash Basin	CATAW-054	ACTIVE
Station Marshall Steam	Dam Marshall Retention Basin	CATAW 076	ACTIVE
Marshall Steam Station	Dam	CATAW-076	ACTIVE
Marshall Steam	Marshall Holding Basin Dam	CATAW-075	ACTIVE
Station	Waishan Holding Basin Dain	CATAW-0/3	ACTIVE
Marshall Steam	Marshall West Temporary	CATAW-TBD	ACTIVE
Station	SWP	CAIAW-IDD	ACTIVE
Marshall Steam	Marshall East Temporary	CATAW-TBD	ACTIVE
Station	SWP	CHIMW IBB	TOTIVE
Mayo Steam Electric	Mayo Lake Dam	PERSO-034	ACTIVE
Plant		I Eris o os i	1101112
Mayo Steam Electric	Mayo Active Ash Pond Dam	PERSO-035	ACTIVE
Plant	11111   1 1201   1 1201   1 2010   2 0111		1101112
Mayo Steam Electric	Mayo FGD Settling Pond	PERSO-036	ACTIVE
Plant	Dam		
Mayo Steam Electric	Mayo FGD Flush Pond Dam	PERSO-037	ACTIVE
Plant			
Mayo Steam Electric	Mayo Coal Pile Dam	PERSO-046	ACTIVE
Plant			
Mayo Steam Electric	Mayo FGD Settling Basin	PERSO-049	ON-GOING
Plant	Dam		CONSTRUCTION
Mayo Steam Electric	Mayo Retention Basin Dam	PERSO-050	ON-GOING
Plant			CONSTRUCTION
Riverbend Steam	Riverbend Active Primary	GASTO-097	ON-GOING
Station	Ash Basin Dam		DECOMISSION
Riverbend Steam	Riverbend Active Secondary	GASTO-098	ON-GOING
Station	Ash Basin Dam	G + CTC - 000	DECOMISSION
Riverbend Steam	Riverbend Intermediate Dam	GASTO-099	REMOVED
Station	D' 1 15 10	G A GTG 107	DEL COLIED
Riverbend Steam	Riverbend Fuel Containment	GASTO-105	REMOVED
Station	Dam	DEDGO 002	A CITILIE
Roxboro Steam	Lake Hyco Dam	PERSO-002	ACTIVE
Electric Plant	Daybana Aftanhari Dana	DED CO 012	A CTIVE
Roxboro Steam Electric Plant	Roxboro Afterbay Dam Reservoir	PERSO-013	ACTIVE
Roxboro Steam	Reservoir Roxboro West Ash Basin	PERSO-038	ACTIVE
Electric Plant	Dam	rensu-uso	ACTIVE
Roxboro Steam	Roxboro West Ash Basin	PERSO-039	ACTIVE
Electric Plant	Rock Filter Dam	1 EKSO-033	ACTIVE
Electric Flam	NOCK THEI Dalli		

Roxboro Steam	Roxboro West FGD Settling	PERSO-040	ACTIVE
Electric Plant	Pond Dam		
Roxboro Steam	Roxboro East FGD Settling	PERSO-041	ACTIVE
Electric Plant	Pond Dam		
Roxboro Steam	Roxboro FGD Forward Flush	PERSO-042	ACTIVE
Electric Plant	Pond Dam		
Roxboro Steam	Roxboro East Ash Basin Dam	PERSO-033	ACTIVE
Electric Plant			
Roxboro Steam	Roxboro Intake Pond Dam	PERSO-043	ACTIVE
Electric Plant			
Roxboro Steam	Roxboro Retention Basin	PERSO-048	ACTIVE
Electric Plant	Dam		
Roxboro Steam	Roxboro Holding Basin Dam	PERSO-047	ACTIVE
Electric Plant			
L. V. Sutton Energy	Sutton 1984 Ash Basin Dam	NEWHA-005	ON-GOING
Complex			DECOMISSION
L. V. Sutton Energy	Sutton 1971 (1983) Ash Basin	NEWHA-004	ON-GOING
Complex	Dam		DECOMISSION
L. V. Sutton Energy	Sutton 1972 Cooling Lake	NEWHA-003	ACTIVE
Complex	Dam (Exempted by HB 119)		
W. H. Weatherspoon	Weatherspoon Cooling Lake	ROBES-004	ACTIVE
Power Plant	Dam		
W. H. Weatherspoon	Weatherspoon 1979 Ash	ROBES-009	ACTIVE
Power Plant	Basin Dam		