# **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 (DEQ) 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:
  - 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:
  - Allen Steam Station
  - o Belews Creek Steam Station
  - Buck Combined Cycle Station

- o James E. Rogers Energy Complex (formerly Cliffside Steam Station)
- o 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 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.

- A/M Approval with Modifications
- BTVs Background Threshold Values
- CAP Corrective Action Plan
- COFA Certificate of Final Approval
- CQA Construction Quality Assurance
- CSA Comprehensive Site Assessment
- DEQ North Carolina Department of Environmental Quality
- DORS Distribution of Residual Solids
- DWR Division of Water Resources
- EMC Environmental Management Commission
- FGD Flue-gas Desulfurization
- NOD Notice of Deficiency
- NOI Notice of Intent
- NPDES National Pollution Discharge Elimination System

- PTC Permit to Construct
- PTO Permit to Operate
- SOC Special Order by Consent

#### Allen Steam Station

- Assessment and Corrective Action Status
  - May 9, 2019 DEQ revised previous correspondence and reestablished dates for Duke Energy to submit the following with regards to CSAs and CAPs:
    - Updated CAP for the impoundments and other primary and secondary sources (coal pile, retired ash basin and landfill, structural fills, and dry ash storage areas) – March 31, 2020
    - CSA for other primary and secondary sources (gypsum pad) March 31, 2020

#### • 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.
- o April 1, 2019 Per 130A-309.214(a)(3), DEQ determined that excavation under 130A-309.214(a)(1) shall be the method of closure for the impoundments.
- April 26, 2019 Duke Energy filed an appeal with the Office of Administrative Hearings contesting the closure determination.
- o May 9, 2019 DEQ reestablished Closure Plans to be due December 31, 2019.
- NPDES permit NC0004979
  - No update for this quarter.
- SOC S17-009
  - No update for this quarter.

#### Asheville Steam Electric Plant

- Assessment and Corrective Action Status
  - April 5, 2019 DEQ reestablished dates for Duke Energy to submit the following with regards to CSAs and CAPs:
    - Updated CSA for impoundments and other primary and secondary sources (coal pile) – June 1, 2020
    - Updated CAP for impoundments and other primary and secondary sources
       March 1, 2021
  - April 4, 2019 DEQ requested Interim Action Effectiveness Monitoring Report due July 31, 2019.
- Closure Status
  - o 1964 Basin
    - Excavation of the impoundment in progress.
  - o 1982 Basin
    - Impoundment completely excavated.

- NPDES permit NC0000396
  - o No update this quarter.
- SOC S17-010
  - No update for this quarter.

#### Belews Creek Steam Station

- Assessment and Corrective Action Status
  - May 9, 2019 DEQ revised previous correspondence and reestablished dates for Duke Energy to submit the following with regards to CSAs and CAPs:
    - Updated CAP for impoundments and other primary and secondary sources
       (Pine Hall Road landfill) March 31, 2020
    - CSA for other primary and secondary sources (structural fill and coal pile)
       March 31, 2020
  - April 4, 2019 DEQ requested Interim Action Effectiveness Monitoring Report due July 31, 2019.

#### • 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.
- o April 1, 2019 Per 130A-309.214(a)(3), DEQ determined that excavation under 130A-309.214(a)(1) shall be the method of closure for the impoundments.
- April 26, 2019 Duke Energy filed an appeal with the Office of Administrative Hearings contesting the closure determination.
- May 9, 2019 DEQ revised previous correspondence and reestablished Closure Plan to be due December 31, 2019
- NPDES permit NC0024406
  - o March 21, 2019 Permit was issued and became effective March 25, 2019.
- SOC S18-004
  - o No update for this quarter.
- SOC S18-009
  - o March 21, 2019 SOC was signed by the Director.

## **Buck Combined Cycle Station**

- Assessment and Corrective Action Status
  - April 5, 2019 DEQ reestablished dates for Duke Energy to submit the following with regards to CSAs and CAPs:
    - Updated CSA for impoundments and other primary and secondary sources (coal pile) – October 1, 2020
    - Updated CAP for impoundments and other primary and secondary sources
       July 1, 2021
- 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
  - o No update for this quarter.

## Cape Fear Steam Electric Plant

- Assessment and Corrective Action Status
  - April 5, 2019 DEQ reestablished dates for Duke Energy to submit the following with regards to CSAs and CAPs:
    - Updated CSA for impoundments and other primary and secondary sources (former coal pile storage areas) – September 1, 2020
    - Updated CAP for impoundments and other primary and secondary sources
       July 1, 2021
- 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
  - o No update this quarter.
- SOC number unassigned
  - No longer associated with SOC S18-006. Draft SOC has been written and is being reviewed and negotiated.

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

- Assessment and Corrective Action Status
  - May 9, 2019 DEQ revised previous correspondence and reestablished dates for Duke Energy to submit the following with regards to CSAs and CAPs:
    - Updated CAP for impoundments and other primary and secondary sources (ash storage areas, new source area east of Unit 6 and west of Suck Creek)
       March 31, 2020
    - CSA for other primary and secondary sources (raw coal piles north of Unit 6, switchyard ash disposal area, and gypsum pile) – March 31, 2020
  - o 5/23/19 Finalized soil BTVs and submitted to Duke.

#### • Closure Status

- o Inactive Units 1-4 are completely excavated. On August 10, 2018, DEQ approved the visual verification of CCR removal.
- 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.
- April 1, 2019 Per 130A-309.214(a)(3), DEQ determined that excavation under 130A-309.214(a)(1) shall be the method of closure for the impoundments.
- April 26, 2019 Duke Energy filed an appeal with the Office of Administrative Hearings contesting the closure determination.
- May 9, 2019 DEQ revised previous correspondence and reestablished Closure Plan to be due December 31, 2019
- NPDES permit NC0005088
  - No update this quarter.
- SOC S17-009
  - No update this quarter.

#### Dan River Combined Cycle Station

- Assessment and Corrective Action Status
  - April 5, 2019 DEQ reestablished dates for Duke Energy to submit the following with regards to CSAs and CAPs:
    - Updated CAP for impoundments and other primary and secondary sources (former coal yard) – July 1, 2020
- 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
  - April 5, 2019 DEQ reestablished dates for Duke Energy to submit the following with regards to CSAs and CAPs:
    - Updated CSA for impoundments and other primary and secondary sources (coal staging area, coal pile area, and lay of land area) – October 1, 2020
    - Updated CAP for impoundments and other primary and secondary sources
       July 1, 2021
- Closure Status
  - 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

- Draft permit was resubmitted to public notice, and the public comment period ends May 6, 2019.
- SOC S18-006
  - No update this quarter.

#### Marshall Steam Station

- Assessment and Corrective Action Status
  - May 9, 2019 DEQ revised previous correspondence and reestablished dates for Duke Energy to submit the following with regards to CSAs and CAPs:
    - Updated CAP for impoundments and other primary and secondary sources (coal pile and gypsum pile) – March 31, 2020
  - o 5/23/19 Finalized soil BTVs and submitted to Duke.
- 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.
  - o April 1, 2019 Per 130A-309.214(a)(3), DEQ determined that excavation under 130A-309.214(a)(1) shall be the method of closure for the impoundments.
  - April 26, 2019 Duke Energy filed an appeal with the Office of Administrative Hearings contesting the closure determination.
  - May 9, 2019 DEQ revised previous correspondence and reestablishes Closure Plan to be due December 31, 2019
- NPDES permit NC0004987
  - No update this quarter.
- SOC S17-009
  - No update this quarter.

## Mayo Steam Electric Plant

- Assessment and Corrective Action Status
  - May 9, 2019 DEQ revised previous correspondence and reestablished dates for Duke Energy to submit the following with regards to CSAs and CAPs:
    - Updated CAP for impoundments and other primary and secondary sources (active coal storage pile areas) – March 31, 2020
    - CSA for other primary and secondary sources (gypsum pad and low-volume wastewater pond) – March 31, 2020
  - o 5/23/19 Finalized soil BTVs and submitted to Duke.
- 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.

- o April 1, 2019 Per 130A-309.214(a)(3), DEQ determined that excavation under 130A-309.214(a)(1) shall be the method of closure for the impoundments.
- April 26, 2019 Duke Energy filed an appeal with the Office of Administrative Hearings contesting the closure determination.
- May 9, 2019 DEQ revised previous correspondence and reestablished Closure Plan to be due December 31, 2019
- NPDES permit NC0038377
  - No update this quarter.
- SOC S18-005
  - o No update this quarter.

## **Riverbend Steam Station**

- Assessment and Corrective Action Status
  - April 5, 2019 DEQ reestablishes dates for Duke Energy to submit the following with regards to CSAs and CAPs:
    - Updated CAP for impoundments and other primary and secondary sources (coal yard) – May 1, 2020
- 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
  - May 9, 2019 DEQ revises previous correspondence and reestablishes dates for Duke Energy to submit the following with regards to CSAs and CAPs:
    - Updated CAP for impoundments and other primary and secondary sources (east and west ash basins extensions and discharge canals) – March 31, 2020
    - CSA for other primary and secondary sources (coal storage area) March 31, 2020
  - o April 17, 2019 DWR Raleigh Regional Office approved soil assessment plan.
  - o May 21, 2019 DEQ approved Coal Pile Assessment Plan.
  - o 5/23/19 Finalized soil BTVs and submitted to Duke.

#### • 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.
- April 1, 2019 Per 130A-309.214(a)(3), DEQ determined that excavation under 130A-309.214(a)(1) shall be the method of closure for the impoundments.
- April 26, 2019 Duke Energy filed an appeal with the Office of Administrative Hearings contesting the closure determination.

- May 9, 2019 DEQ revised previous correspondence and reestablished Closure Plan to be due December 31, 2019
- NPDES permit NC0003425
  - o Currently in draft and waiting for submission to be re-public noticed.
- SOC S18-005
  - o No update this quarter.

## L. V. Sutton Energy Complex

- Assessment and Corrective Action Status
  - April 5, 2019 DEQ reestablished dates for Duke Energy to submit the following with regards to CSAs and CAPs:
    - Updated CAP for impoundments and other primary and secondary sources (former ash disposal area, former process area, and former coal stockpile area) – May 1, 2020
  - April 4, 2019 DEQ requested Interim Action Effectiveness Monitoring Report due May 15, 2019.
- 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
  - April 5, 2019 DEQ reestablished dates for Duke Energy to submit the following with regards to CSAs and CAPs:
    - Updated CSA for impoundments and other primary and secondary sources (coal storage area and cooling pond) – June 1, 2020
    - Updated CAP for impoundments and other primary and secondary sources
       March 1, 2021
- Closure Status
  - 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 No update this quarter.

- SOC number unassigned
  - No longer associated with SOC S18-006. Draft SOC has been written and is being reviewed and negotiated.

## **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 Retired Ash Basin Landfill 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)
  - 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
  - o Inspected 3/19/19
- 8504-INDUS-2007: Craig Road Landfill (open, lined)
  - o PTO renewal issued Nov. 28, 2017
  - Groundwater Assessment
    - assessment request letter issued 11/9/2011
    - work plan submitted 2/9/2012
    - work plan approved 3/23/2012
    - assessment report submitted 12/21/2012
    - final assessment approval 5/2/2016
  - o Small slope failure, incident report submitted 10/15/18, repairs completed
  - o Inspected 3/19/19

#### • 8505-INDUS-2008: 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
- o PTO issued 11/28/17
- Groundwater Assessment
  - assessment request letter issued 11/9/2011
  - work plan submitted 2/9/2012
  - work plan approved 3/23/2012
  - assessment report submitted 10/5/2012
  - assessment response issued 11/28/2012
  - approved additional assessment work plan 11/7/2016

- approved amendment to work plan on 2/24/2017
- assessment report submitted 5/31/2017
- DWM Solid Waste Section concurrence 8/21/2017
- Revised report to assessment report issued 4/25/18
- Currently still undergoing assessment
- o Inspected 3/19/19

<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, PTC issued October 26, 2016
  - 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
  - Cell 3 Operations authorized on 5/8/18
  - o Inspected 11/28/18
  - Use of lime-based ash drying agents authorized through 1st quarter 2019

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

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

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

- 1804-INDUS-1983: Dry Ash Landfill (closed, unlined)
  - 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 issued 7/12/12
    - final assessment approval issued 5/2/16
  - o Inspected 1/23/19
- 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

- Closure Cap construction nearing completion
- Groundwater Assessment
  - assessment request letter issued 11/9/11
  - assessment work plan submitted 2/9/12
  - work plan 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)
- Closure CQA is under review

## • 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
  - Facility announced the use of natural gas
  - o Inspected 1/23/19
  - o Approval of Phase 3 & 4 piezometer installation plan issued 7/13/18
  - o Phase 3&4 PTC Application submitted 3/11/19

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

- 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
  - 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
- Cells 7 and 8 Operations approved 5/16/18
- o Significant slope failures from Hurricane Florence reported 9/15/18, repairs confirmed in March 2019.
- o Inspected 12/12/18
- Cell 6 Daily Leakage Rate Exceedance reported 12/19/18, repairs confirmed March 2019

# **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 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
- Site Suitability Application submitted 4/3/19
- DWM issued technical comments letter on 4/25/19

<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 1st quarter 2020

<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 3<sup>rd</sup> quarter 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 2<sup>nd</sup> quarter 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
- Excavation completed March 2019

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

- Basin ash trucked to beneficial reuse facilities in South Carolina began 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

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
  - o assessment work plan submitted 11/20/16
  - o work plan approval issued 12/6/16
  - o assessment report submitted 6/28/17
  - o assessment ongoing

## Belews Creek Steam Station Structural Fill (CCB0070)

- Groundwater Assessment
  - o assessment work plan submitted 11/7/16
  - o work plan approval issued 12/7/16
  - o additional assessment approval (installation of well clusters) issued 5/26/17
  - o time extension of assessment approval issued 12/15/17
  - Groundwater Assessment Report submitted 1/5/18
  - o response to assessment report issued 1/23/18
  - o Additional Assessment Work Plan submitted 5/20/
  - 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
- Water Quality Monitoring Report submitted April 2019

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

- Surface water Assessment ongoing by DWR. Notice of Violation issued 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**

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 since the previous quarterly report.

**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
  - Nothing to report at this time
- Erosion and Sediment Control and Construction Storm Water
  - Nothing to report at this time
- NPDES Storm Water
  - Nothing to report at this time

#### **Buck Combined Cycle Station**

- Dam Safety
  - o 3/19/19 Received submittal to increase the dewatering rate for ROWAN-047
    - 4/3/19 Certificate of Approval to Increase Dewatering Rate issued
  - o 3/19/19 Received submittal to increase the dewatering rate for ROWAN-070
    - 4/3/19 Certificate of Approval to Increase Dewatering Rate issued
- Erosion and Sediment Control and Construction Storm Water
  - 2/13/2019 ROWAN-2019-016 Buck Final Grading Plan for Decommissioning A/M issued
- NPDES Storm Water
  - o Nothing to report at this time

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

- Dam Safety
  - o 3/5/2019 As-Built inspection for CLEVE-047 (Scope 7)
- Erosion and Sediment Control and Construction Storm Water
  - o 3/12/2019 CLEVE-2018-043 revised
  - o 3/5/2019 CLEVE-2017-018 inspected compliant
  - o 3/5/2019 CLEVE-2018-023 inspected compliant
  - o 3/5/2019 CLEVE-2018-043 inspected compliant

- NPDES Storm Water
  - Nothing to report at this time

#### **Marshall Steam Station**

- Dam Safety
  - 4/16/19 Received submittal for installing a water treatment system pad electrical distribution line for CATAW-054 Scope 8
  - o 6/20/18 Issued approval for installation of instrumentation for the Active Ash Basin (CATAW-054).
    - 3/5/19 As-Built drawings received
    - 3/26/19 As-Built inspection performed
    - 3/28/19 Certificate of Final Approval to Install Instrumentation issued
- Erosion and Sediment Control and Construction Storm Water
  - o 1/7/2019 CATAW-2018-019 revised A/MPR issued
  - o 3/26/2019 CATAW-2018-015 revised A/M issued
  - o 3/28/2019 CATAW-2019-017 Marshall Water Treatment System Pad A/M issued
  - o 3/26/2019 CATAW-2017-011 inspection compliant
  - o 3/26/2019 CATAW-2017-014 inspection compliant
  - o 3/26/2019 CATAW-2018-002 inspection compliant
  - o 3/26/2019 CATAW-2017-021 inspection compliant
  - o 3/26/2019 CATAW-2018-016 inspection compliant
  - o 3/26/2019 CATAW-2004-047 inspection compliant
  - o 3/26/2019 CATAW-2019-009 inspection compliant
  - o 3/26/2019 CATAW-2017-007 inspection compliant
  - o 3/26/2019 CATAW-2018-019 inspection compliant
  - o 3/26/2019 CATAW-2016-008 inspection compliant
  - o 3/26/2019 CATAW-2017-019 inspection 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
  - Nothing to report at this time
- NPDES Storm Water
  - Nothing to report at this time

#### **Belews Creek Steam Station**

- Dam Safety
  - o 12/29/16 Received submittal on STOKE-117 Scope 3
    - 7/21/17 Revision request letter issued
    - 11/30/17 Certificate of Approval to Repair issued
    - 12/20/18 As-Built drawings received
    - 2/19/19 As-Built inspection performed
    - 3/26/19 Revision request letter issued
- 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 Combined Cycle Station**

- Dam Safety
  - 12/18/18 Received a submittal for dam decommissioning sequence C for Active Primary Ash Basin Dam (ROCKI-237)
    - 3/22/19 Additional information was received regarding design storm criteria
  - 12/18/18 Received a submittal for dam decommissioning sequence C for Active Secondary Ash Basin Dam (ROCKI-238)
    - 3/22/19 Additional information was received regarding design storm criteria
- Erosion and Sediment Control and Construction Storm Water
  - Nothing to report at this time
- NPDES Storm Water
  - Nothing to report at this time

## L. V. Sutton Energy Complex

- Dam Safety
  - Nothing to report at this time
- Erosion and Sediment Control and Construction Storm Water
  - Nothing to report at this time
- NPDES Storm Water
  - Nothing to report at this time

## **Cape Fear Steam Electric Plant**

- Dam Safety
  - 3/6/19 Annual Dam inspection CHATH-075 (1956 ash pond dam), CHATH-76 (1963 ash pond dam), CHATH-077 (1970 ash pond dam), CHATH-078 (1985 ash pond dam)
  - o 3/19/19 NOI CHATH-079 (1985 ash pond dam)

- o 3/19/19 NOD/CHATH—075 (1956 ash pond dam), CHATH-076 (1963 ash pond dam) and 3/23/19 NOD CHATH-077 (1970 ash pond dam)
- 12/14/16 NOD on dams was issued to keep consistent with the Dam Safety Order
   16-01 as tree removal work is not yet complete
- Review of dam plan/ CHATH-078 (1985 coal ash dam), "Request to install temporary Power Distribution Line in Dam," Provided reminder that exceedance of 1 acre would require a sediment and erosion control plan. No other comment provided by RRO
- Erosion and Sediment Control and Construction Storm Water
  - o 3/6/19 CHATH-2018-008 (Tree and Rootball Removal plan)
    - No deficiencies, recommend to continue vegetation efforts
  - o 3/6/19 CHATH2017-004 (Temporary Water Treatment System)
    - Project was complete and suitable for close out with this office
- NPDES Storm Water
  - Nothing to report at this time

## **Mayo Steam Electric Plant**

- Dam Safety
  - 5/2/19 As-Built inspection of PERSO-049 Mayo FGD Settling Basin Request for COFA Scope 1 and PERSO-050 Scope 1, Addendum 1, Request COFA Retention Basin
  - Measurements taken at the spillways (width and length), rip rap channel (width and length), height of wing walls, pipe size observation, width of crest and height of embankment all are consistent with the engineer report provided by Duke Energy. An observation was made that noted fence posts were installed at the retention basin, but no fencing or razor wire had been installed. This disparity was accounted for in the documentation provided by Duke Energy and it will be installed at a later date. Based on our findings, we did concur with the request for a COFA for both projects.
- Erosion and Sediment Control and Construction Storm Water
  - Nothing to report at this time
- NPDES Storm Water
  - Nothing to report at this time

# **Roxboro Steam Electric Plant**

- Dam Safety
  - Nothing to report at this time
- Erosion and Sediment Control and Construction Storm Water
  - o Nothing to report at this time.
- NPDES Storm Water
  - 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
- NPDES Storm Water
  - 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
- NPDES Storm Water
  - Nothing to report at this time

## W. H. Weatherspoon Power Plant

- Dam Safety
  - Nothing to report at this time
- 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 Energy Complex**

- Dam Safety
  - 5/7/19 WAYNE-009 Cooling Pond As-built inspection, Pipe Point Repair, and Scope 5 inspection
  - o 5/7/19 WAYNE-009 Cooling Pond inspection
- Erosion and Sediment Control and Construction Storm Water
  - o 3/19/19 Ash Beneficiation facility revision application received
    - 4/2/19 Approved
  - o 4/17/19 Bridge Improvements revision application received,
    - 5/2/19 Approved
  - o 4/15/19 bank sloughing incident reported (3'x3' section of bank, further rain sloughed off more of the bank)
  - o 4/22/19 Incident written notification received
- NPDES Storm Water

Nothing to report at this time

## **Asheville Steam Electric Plant**

- Dam Safety
  - 5/1/19 Received submittal for repairing an existing concrete ditch for BUNCO-088 Scope 7 Addendum 1
  - 9/5/18 Received submittal for Scope 7 Principal Spillway abandonment on the 1964 Ash Basin (BUNCO-097)
    - 10/3/18 Certificate of Approval for Repair issued
    - 3/6/19 Received As-Built drawings
    - 3/19/19 Performed As-Built inspection
    - 3/20/19 Certificate of Final Approval issued
  - 3/19/19 Received submittal for the decommissioning and breaching of BUNCO-097 Scope 8.
- 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-ID	DAM STATUS
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 Electric Plant	Lake Julian Dam	BUNCO-088	ACTIVE
Asheville Steam Electric Plant	Asheville 1982 Ash Pond Dam	BUNCO-089	DECOMISSIONED
Asheville Steam Electric Plant	Asheville 1964 Ash Pond Dam	BUNCO-097	ON-GOING DECOMISSION
Asheville Steam Electric Plant	Asheville Lined Retention Basin Dam	BUNCO-TBD	ON-GOING CONSTRUCTION
Belews Creek Steam Station	Belews Creek Active Ash Basin Dam	STOKE-116	ACTIVE
Belews Creek Steam Station	Belews Lake Dam	ROCKI-236	ACTIVE
Belews Creek Steam Station	Belews Lake Saddle Dike #1 Dam	STOKE-117	ACTIVE
Belews Creek Steam Station	Belews Lake Saddle Dike #2 Dam	STOKE-118	ACTIVE
Belews Creek Steam Station	Belews Lake Saddle Dike #3 Dam	STOKE-119	ACTIVE
Belews Creek Steam Station	Belews Lake Saddle Dike #4 Dam	ROCKI-235	ACTIVE

Belews Creek Steam	Belews Creek Chemical Pond	STOKE-115	ACTIVE
Station	Dam		
Belews Creek Steam	Belews Creek Retention Basin	STOKE-121	ACTIVE
Station	Dam C. 1 H. H. D. :	CTOKE 100	A CTENTE
Belews Creek Steam	Belews Creek Holding Basin	STOKE-120	ACTIVE
Station	Dam	DOWAN 047	A CTENTE
Buck Combined Cycle	Buck Main Ash Basin Dam	ROWAN-047	ACTIVE
Station	D 1 A 1 D ' #1 D	DOWAN 060	A CTENTE
Buck Combined Cycle Station	Buck Ash Basin #1 Dam	ROWAN-068	ACTIVE
Buck Combined Cycle Station	Buck Basin #1 to Basin #2 Dam	ROWAN-069	ACTIVE
Buck Combined Cycle Station	Buck Basin #2 to Basin #3 Dam	ROWAN-070	ACTIVE
Buck Combined Cycle Station	Buck Ash Basin Divider Dam	ROWAN-071	ACTIVE
Buck Combined Cycle Station	Buck Fuel Containment Dam	ROWAN-072	ACTIVE
Buck Combined Cycle	Buck Beneficial Ash Wet Pond	ROWAN-TBD	ON-GOING
Station			CONSTRUCTION
Buck Combined Cycle	Buck Beneficial Ash Dry Pond	ROWAN-TBD	ON-GOING
Station			CONSTRUCTION
Cape Fear Steam	Buckhorn Lake Dam	CHATH-022	ACTIVE
Electric Plant			
Cape Fear Steam	Cape Fear 1956 Ash Pond Dam	CHATH-075	INACTIVE
Electric Plant			
Cape Fear Steam	Cape Fear 1963 Ash Pond Dam	CHATH-076	INACTIVE
Electric Plant			
Cape Fear Steam	Cape Fear 1970 Ash Pond Dam	CHATH-077	INACTIVE
Electric Plant			
Cape Fear Steam	Cape Fear 1978 Ash Pond Dam	CHATH-078	INACTIVE
Electric Plant	G F 1005 1 1 B 1 B	CYLL TYL 070	A CITINI III
Cape Fear Steam	Cape Fear 1985 Ash Pond Dam	CHATH-079	ACTIVE
Electric Plant Cape Fear Steam	Cape Fear Flood Control Dam	CHATH-080	ACTIVE
Electric Plant	(Exempted by HB 119 (L))	C11A111-000	ACTIVE
James E. Rogers	Cliffside River Dam (Exempted	CLEVE-053	ACTIVE
Energy Complex	by HB 119 (L))		
(Cliffside Steam			
Station)			
James E. Rogers	Cliffside Inactive Ash Basin #5	RUTHE-070	INACTIVE
Energy Complex	Main Dam		
(Cliffside Steam			
Station)			
James E. Rogers	Cliffside Inactive Ash Basin #5	RUTHE-072	INACTIVE
Energy Complex	Saddle Dam		
(Cliffside Steam			
Station)			
James E. Rogers	Cliffside Active Ash Basin	CLEVE-050	ACTIVE
Energy Complex	Upstream Dam		
			· · · · · · · · · · · · · · · · · · ·

(Cliffside Steam			
Station)			
James E. Rogers	Cliffside Active Ash Basin	CLEVE-049	ACTIVE
Energy Complex	Downstream Dam		
(Cliffside Steam			
Station)			
James E. Rogers	Cliffside Retention Basin Dam	CLEVE-047	ACTIVE
Energy Complex	(Formerly Inactive Ash Basin		
(Cliffside Steam	#1-4 Main Dam)		
Station)			
James E. Rogers	Cliffside Active Ash Basin	CLEVE-054	ACTIVE
Energy Complex	Internal Dam		
(Cliffside Steam			
Station)		DOGWY 227	OM CODIC
Dan River Combined	Dan River Active Primary Ash	ROCKI-237	ON-GOING
Cycle Station	Basin Dam	DOCKI 220	DECOMISSION
Dan River Combined	Dan River Active Secondary Ash	ROCKI-238	ON-GOING
Cycle Station	Basin Dam		DECOMISSION
Dan River Combined	Dan River Service Water Settling	ROCKI-241	ACTIVE
Cycle Station	Pond Dam		
Dan River Combined	Dan River Low Head Diversion	ROCKI-239	ACTIVE
Cycle Station	Dam	TILL A TO TEL OOO	A CONTACT
H.F. Lee Energy	H.F. Lee Cooling Lake Dam	WAYNE-009	ACTIVE
Complex	HEL A. A.D. D	WANDE 022	A CORN IE
H.F. Lee Energy	H.F. Lee Active Ash Basin Dam	WAYNE-022	ACTIVE
Complex H.F. Lee Energy	H.F. Lee Inactive Ash Basin 1	WAYNE-031	INACTIVE
Complex	Dam	WAINE-031	INACTIVE
H.F. Lee Energy	H.F. Lee Inactive Ash Basin 2	WAYNE-032	INACTIVE
Complex	Dam	WATNE-032	INACTIVE
H.F. Lee Energy	H.F. Lee Inactive Ash Basin 3	WAYNE-033	INACTIVE
Complex	Dam	WIII (2 033	I WIGHT L
H.F. Lee Energy	H.F. Lee Permanent Stormwater	WAYNE-TBD	ACTIVE
Complex	Pond Dam		
H.F. Lee Energy	H.F. Lee Triangular Pond Dam	WAYNE-034	ACTIVE
Complex			
Marshall Steam Station	Marshall Active Ash Basin Dam	CATAW-054	ACTIVE
Marshall Steam Station	Marshall Retention Basin Dam	CATAW-076	ACTIVE
Marshall Steam Station	Marshall Holding Basin Dam	CATAW-075	ACTIVE
Marshall Steam Station	Marshall West Temporary SWP	CATAW-TBD	ACTIVE
Marshall Steam Station	Marshall East Temporary SWP	CATAW-TBD	ACTIVE
Mayo Steam Electric Plant	Mayo Lake Dam	PERSO-034	ACTIVE
Mayo Steam Electric Plant	Mayo Active Ash Pond Dam	PERSO-035	ACTIVE
Mayo Steam Electric Plant	Mayo FGD Settling Pond Dam	PERSO-036	ACTIVE

Mayo Steam Electric Plant	Mayo FGD Flush Pond Dam	PERSO-037	ACTIVE
Mayo Steam Electric	Mayo Coal Pile Dam	PERSO-046	ACTIVE
Plant Maria Stager Floatria	Maria ECD Cattling Pagin Dam	DEDCO 040	ON COINC
Mayo Steam Electric	Mayo FGD Settling Basin Dam	PERSO-049	ON-GOING
Plant	M. D. C. D. D.	DEDGO 050	CONSTRUCTION
Mayo Steam Electric Plant	Mayo Retention Basin Dam	PERSO-050	ON-GOING
Riverbend Steam	Discoule and Astissa Drives are Ash	GASTO-097	CONSTRUCTION
	Riverbend Active Primary Ash	GAS10-09/	ON-GOING
Station	Basin Dam	CACTO OOO	DECOMISSION
Riverbend Steam	Riverbend Active Secondary Ash	GASTO-098	ON-GOING
Station	Basin Dam	CACTO OOO	DECOMISSION
Riverbend Steam	Riverbend Intermediate Dam	GASTO-099	REMOVED
Station	Di la IE IG	G + GTO 105	DEL COLLED
Riverbend Steam	Riverbend Fuel Containment	GASTO-105	REMOVED
Station	Dam	DED 00 000	A COMMAN
Roxboro Steam	Lake Hyco Dam	PERSO-002	ACTIVE
Electric Plant			
Roxboro Steam	Roxboro Afterbay Dam	PERSO-013	ACTIVE
Electric Plant	Reservoir		
Roxboro Steam	Roxboro West Ash Basin Dam	PERSO-038	ACTIVE
Electric Plant			
Roxboro Steam	Roxboro West Ash Basin Rock	PERSO-039	ACTIVE
Electric Plant	Filter Dam		
Roxboro Steam	Roxboro West FGD Settling	PERSO-040	ACTIVE
Electric Plant	Pond Dam		
Roxboro Steam	Roxboro East FGD Settling Pond	PERSO-041	ACTIVE
Electric Plant	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 Dam	PERSO-048	ACTIVE
Electric Plant			
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 Dam	NEWHA-003	ACTIVE
Complex	(Exempted by HB 119)		
W. H. Weatherspoon	Weatherspoon Cooling Lake	ROBES-004	ACTIVE
Power Plant	Dam		
W. H. Weatherspoon	Weatherspoon 1979 Ash Basin	ROBES-009	ACTIVE
Power Plant	Dam		