L.V. Sutton Electric Plant

Coal Ash Excavation Plan

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I. Statement of Purpose

Duke Energy Progress, Inc. (Duke Energy or the Company) is required by Section 3(b) of the Coal Ash Management Act of 2014 to close in accordance of Section 3(c) the coal combustion residuals (CCR) surface impoundments located at the L.V. Sutton Electric Plant, National Pollutant Discharge Eliminations System Permit No. #NC0001422 New Hanover County (Sutton) as soon as practicable, but not later than August 1, 2019. Further, by letter to Duke Energy dated August 13, 2014, North Carolina Department of Environment and Natural Resources (NC DENR) requested that Duke Energy submit coal ash excavation plans for inactive coal ash impoundments at Sutton no later than November 15, 2014 (NC DENR Letter).

This Coal Ash Excavation Plan (Plan) represents Phase I and other Subsequent Phase(s) activities to satisfy the requirements outlined in Sections 3(b) and 3(c) Sub paragraph 1&2 of the Coal Ash Management Act of 2014 and the requests set forth in the NC DENR Letter.

In general, the Plan covers the first 12 – 18 months of ash basin excavation activities, including the initiation of basin dewatering, site preparation, ash basin preparation, and ash removal from the basins. These activities may include decanting ash within the ash basin system.

For Subsequent Phase(s), this document will be revised for any modifications to the Plan for the site. The Plan will be updated and submitted to NC DENR annually or earlier as required by Subsequent Phase(s).

The NC DENR letter specifically requests that the Plan include 1) a schedule for soil and sedimentation erosion control measures, 2) dewatering, and 3) the proposed location(s) of the removed ash. These requirements are found in Section V. Level 1 Schedule, Section VI. Erosion and Sedimentation Control Plans, Section VII. Dewatering Plan, and Section VIII. Proposed Location(s) for Removed Ash.

The Plan covers some of the work required by Sections 3(b) and 3(c) of the Coal Ash Management Act of 2014 (Session Law 2014-122) (Coal Ash Act, or Act). The Act requires the closure of the ash basins as soon as practicable, but no later than August 1, 2019. However, the Act contains no requirement for the submittal of an excavation plan of the kind presented here. Thus, while the formulation, submittal, and review of this Plan will assist in Duke Energy's work to close the ash basins, its ultimate approval is an action not specifically required by statutory, regulatory or other applicable authority. Additionally, it may become necessary for the Company to modify the Plan to address other legal requirements or factors that develop during the ash basin excavation. Any changes will be included in annual updates to the Plan that Duke Energy will submit to NC DENR.

The precise scope of work in excavating the ash basins will be determined by applicable laws, rules, permits, and approvals that control the activities to be performed under the Plan. For example, the United States Environmental Protection Agency (EPA) is considering issuing rules regarding the management of coal ash (proposed EPA Coal Ash Rules). Similarly, the water quality permit for the discharge from the Pond (National Pollutant Discharge Elimination System Permit No. #NC0001422 New Hanover County (Sutton) or its reissuance or amendment (NPDES Permit) could contain terms that control or affect the scope of that work. NC DENR filed legal cases in Superior Court (NC DENR Cases), which could be resolved through decision or settlement. NC DENR also sent Duke Energy a Notices of Violation (NOVs) regarding surface water and groundwater quality issues at the Plant.

All of the above (Coal Ash Act, NC DENR Letter, NPDES Permit, NC DENR Cases, NOVs, and the proposed EPA Coal Ash Rules) are illustrative of actions that could potentially affect the precise scope of the work to be performed under the Plan. As a consequence, neither the submittal of this Plan nor its approval by NC DENR should be taken as requiring actions different from other such applicable requirements. Thus, Duke Energy submits this Plan to NC DENR based on the understanding that it may be necessary to make changes in the Plan in the future to reflect any such actions and reserves the right to make such changes after NC DENR's approval of the Plan.

II. General Facility Description

Sutton is located in New Hanover County near Wilmington, North Carolina, situated between the Cape Fear River to the west and the Northeast Cape Fear River to the east. Sutton was a three-unit, 575 megawatt (MW) coal-fired power plant. The Plant operated from 1954 until retirement of the coal-fired units in November 2013. Upon retirement of the coal-fired units a new 625 MW gas-fired unit began operations.

There are two CCR basins, the 1971 and 1984 basins, and a large Cooling Basin. The Cooling Basin is accessible to the general public and is used for recreational purposes. Two other areas that contain CCR material are the Lay of Land Area (LOLA) and the 1971 Borrow Area. The LOLA consists mostly of bottom ash and soil, while the 1971 Borrow Area consists of fly and bottom ash.

1971 Ash Basin

The 1971 Basin was operated from 1971 to 1985. It was opened again in 2011 for temporary use during repair work and ash removal activities. The 1971 Basin is unlined and was initially constructed with a crest elevation of 18 feet, which was raised in 1983 to 26 feet mean sea level (MSL). An area underneath the footprint of the 1971 Basin contains additional CCR materials and is referred to as the 1971 Borrow Area. The 1971 Basin and the Borrow Area contain approximately 3.5 million tons of CCR material.

1984 Ash Basin

The 1984 Basin was operated from 1984 to 2013. Both the 1984 and 1971 Basins contain fly ash, bottom ash, boiler slag, stormwater, ash sluice water, coal pile runoff, and low volume wastewater. The 1984 Basin was constructed with a 12 inch thick clay liner at the basin bottom which extended along the side slopes where it is protected by a 2 foot thick sand layer. The 1984 Basin crest elevation is 34 feet MSL. In 2006 an Interior Containment Area was constructed within the 1984 Basin with a crest elevation of 42 feet MSL. Currently, the 1984 Ash Basin contains approximately 2.8 million tons of CCR material.

LOLA

The LOLA is located between the discharge canal and the coal pile. It is believed that the presence of CCR in this area may have been due to the plant operations between approximately 1954 and 1972. A significant portion of this area toward the discharge canal is heavily vegetated while the portion adjacent to the coal pile storage was used to locate fuel oil storage tanks. The LOLA is on the North Carolina Inactive Hazardous

Waste Sites Priority List. This area contains approximately 840 thousand tons of CCR and soil mixture at depths of 2 to 15 feet.

Current Operating Permit Details

The Cooling Basin, 1971 Basin and 1984 Basin are operated under the State of North Carolina National Pollutant Discharge Elimination System (NPDES) permit number NC0001422 to regulate effluents to the Cape Fear River. Additionally, the dams of the Cooling Basin, 1971 Basin and 1984 Basin, are listed under the NC DENR Dam Safety Program. The dam identification numbers for the Cooling Basin, 1971 Basin and 1984 Basin are NEWHA-003, NEWHA-004, and NEWHA-005; respectively. Furthermore, the dam inventory lists the cooling basin and 1971 dams as exempt. The 1984 dam is listed as impounding, hence regulated. These dams are rated as low hazard by NC DENR. The 2006 Interior Containment Area constructed within the 1984 Basin was permitted and used as a “basin within a basin”, where an interior dam was constructed on top of the CCR within the basin; sluiced CCR was excavated from rim ditches, placed within the interior basin, and compacted to heights that are above the exterior basin dams. This operation was discontinued before reaching the permitted final grades when the Plant was shut down in November 2013.

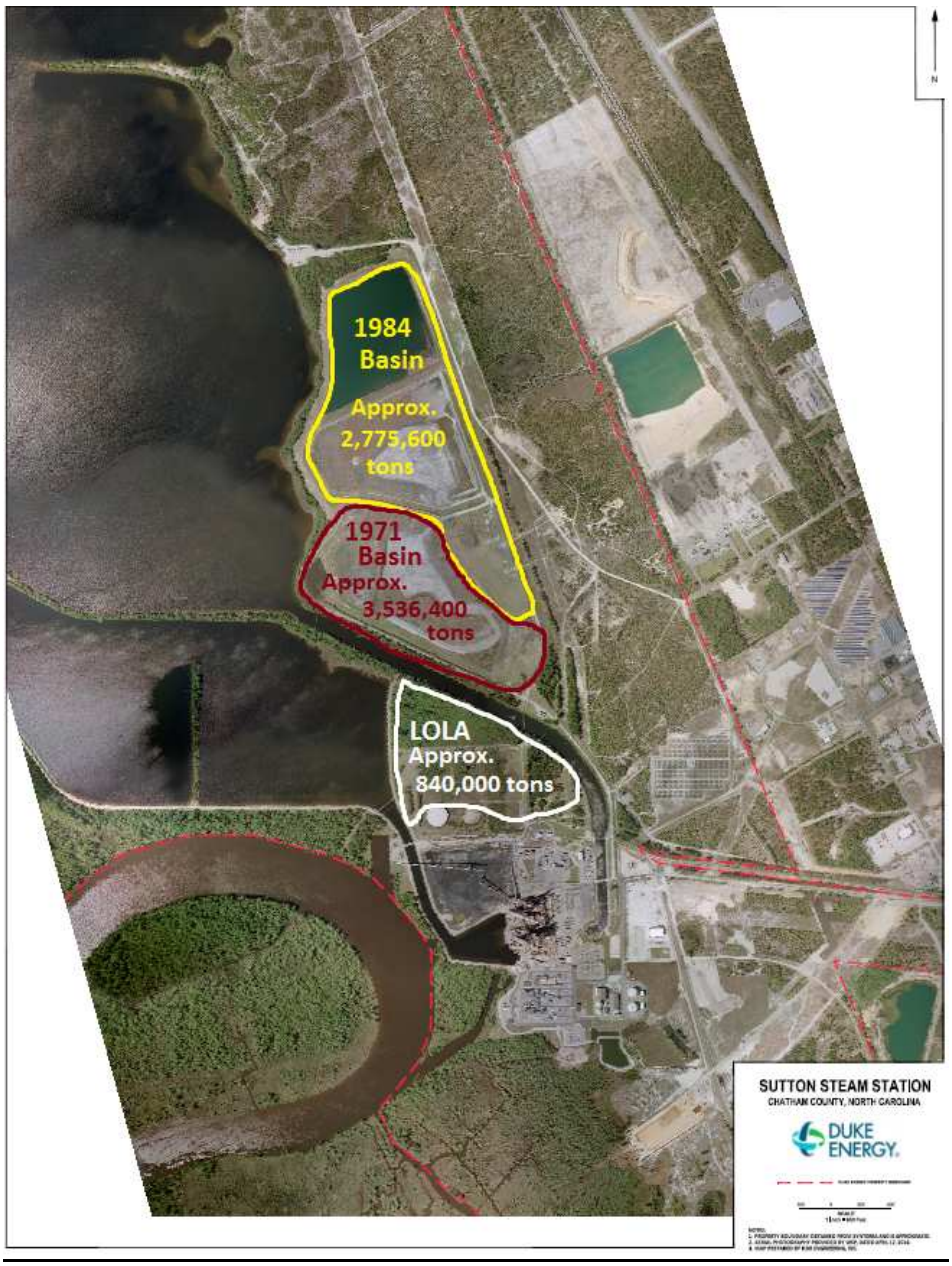


Figure 1: L.V. Sutton Electric Plant in New Hanover County (NC0001422)

III. Project Charter

As a further commitment, the Company has formed an internal team, the Ash Basin Strategic Action Team (ABSAT). This team is dedicated to strengthening and executing a comprehensive strategy for increased oversight and closure of all of the Company's ash basins.

Dewatering of the ash basins and the removal of ash from the site will be performed within project phases, Phase I and Subsequent Phase(s). Required permits for each phase are set forth in Section X of this Plan. Phase I will include site preparation, dewatering, ash excavation to an off-site location, and complete any other subsequent permitted activities. The excavation will begin with the approval of this Plan by NC DENR and the receipt of final permits.

In addition, a dewatering plan for the ash basins has been drafted and, if approved by NC DENR, bulk dewatering will be expedited during the initial phase of work. Duke Energy has submitted an application to modify its NPDES wastewater permit to include controls to be implemented during dewatering activities.

During Phase I, the Company will continue to perform the pre-construction and planning activities for the Subsequent Phase(s). These activities include project planning, development of new storage options, and completion of additional required permitting that may be necessary for the ash removal from the ash basins. Knowledge and opportunities for program improvement obtained during Phase I of the project will be applied to the Subsequent Phase(s).

This Plan will begin removing ash to an off-site location while simultaneously developing an on-site landfill in order to meet the closure requirement mandated in the Coal Ash Management Act. Permits to construct and operate the landfill must be received no later than December 23, 2015 and August 1, 2016; respectively, in order to make the on-site landfill a viable option to comply with the mandatory closure date of August 1, 2019.

Project Charter Objectives

Phase I Objectives

1. Initiate the removal of ash from the Sutton site
2. Begin dewatering of the ash basins
3. Development of option(s) for proposed ash disposal or beneficial reuse locations
4. Gain knowledge and opportunities for program improvement that can be applied to the Subsequent Phase(s)
5. Complete a work scope and award a contract to support ash basin closure by August 2019
6. Validate production rates to meet project requirements
7. Initiate the development and permitting of the on-site landfill
8. Obtain permit to construct on-site landfill by December 23, 2015

Subsequent Phase(s) Objectives

1. Dewater the ash basins
2. Remove ash from the 1971 Basin, 1984 Basin, and the LOLA area
3. Obtain permit to operate the on-site landfill by August 1, 2016
4. Construct and operate the on-site landfill if viable

Project Charter Scope

Phase I Scope

1. Finalize off-site end location for ash relocation
2. Obtain all applicable permits for Phase I
3. Install required site haul roads
4. Prepare and install rail load out spur for transportation by rail
5. Prepare and install truck load out and truck wash for transportation by truck
6. Install site erosion control and sediment control measures
7. Perform site preparation for ash basin ash removal
8. Perform site preparation for the basin dewatering (both 1971 basin & 1984 basin)
9. Begin bulk dewatering of the 1984 Basin
10. Excavate and transport approximately 2.0 million tons of ash from the 1984 Basin and the 1971 Basin to an approved landfill or structural fill location
11. Engineer plan to stop water inputs into the ash basins
12. Initiate rerouting or elimination of inflows to the ash basins
13. Start installation of the basin and lake isolation measures along Sutton Cooling Lake and the discharge canal
14. Finish the engineering for the on-site landfill
15. Modify the lease arrangement for public boat ramp access and install alternate access
16. Initiate landfill development for the on-site landfill

17. Begin site preparation activities for Subsequent Phase(s)
18. Plan activities for Subsequent Phase(s) and submit an updated Plan

Subsequent Phase(s) Scope

1. Identify and/or develop additional off-site ash storage options
2. Obtain all required permits for on-site land fill development
3. Construct and operate the on-site landfill
4. Continue to excavate and transport remaining ash from Sutton to an on-site landfill or structural fill location
5. Obtain all remaining required permits for next Subsequent Phase activities
6. Complete activities to stop basin inflows
7. Complete basin dewatering
8. Install discharge canal isolation measures around the LOLA area
9. Excavate and transport the material from the LOLA area
   Complete closure activities as outlined in Sections 3(b) And 3(c) Subparagraphs 1&2 of the Coal Ash Management Act of 2014

IV. Critical Milestone Dates

Critical Milestones within the Plan are summarized in the table below. These milestones have been added to the Level 1 Schedule.

MILESTONES	NO LATER THAN DATE
Submit Excavation Plan	November 15, 2014
Complete comprehensive engineering review	November 30, 2014
Excavation Plan Approval	February 17, 2015
Industrial Stormwater Permit	February 18, 2015
Commence work – ash removal	Final permit approval + 60 Days
Receive Permit to Construct On-site Landfill	December 23, 2015
Submit Updated Excavation Plan – Subsequent Phase(s)	December 31, 2015
Receive Permit to Operate On-Site Landfill	August 1, 2016
Eliminate stormwater discharge into impoundments	December 31, 2018
Impoundments closed per Sections 3(b) and 3(c) of the Coal Ash Management Act of 2014	August 1, 2019

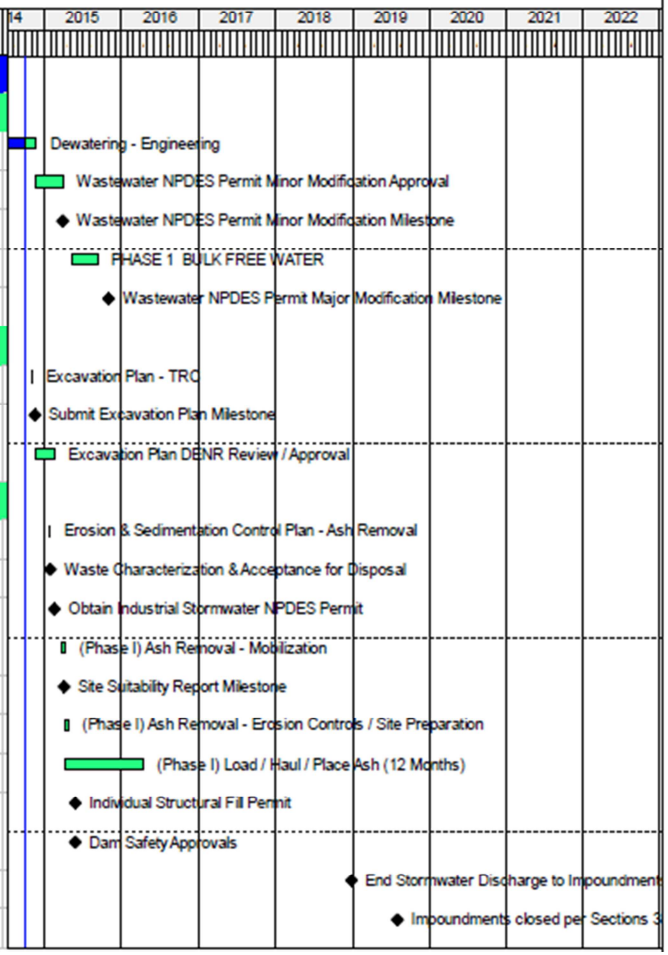
V. Level 1 Schedule

Sutton Ash Pond Closure Project

Sutton Ash Pond Closure Project
Excavation Plan Schedule

Print Date 10-16-14 10:19

Activity Name	Start	Finish
SUTTON ASH POND CLOSURE & DEWATER		
DEWATERING		
Dewatering - Engineering	07-09-14 A	11-24-14
Wastewater NPDES Permit Minor Modification Approval	11-25-14	03-27-15
Wastewater NPDES Permit Minor Modification Milestone		03-27-15
PHASE 1 BULK FREE WATER	05-11-15	09-10-15
Wastewater NPDES Permit Major Modification Milestone		10-30-15*
EXCAVATION PLAN		
Excavation Plan - TRC	11-03-14*	11-03-14
Submit Excavation Plan Milestone		11-15-14*
Excavation Plan DENR Review / Approval	11-17-14	02-17-15
ASH REMOVAL		
Erosion & Sedimentation Control Plan - Ash Removal	01-30-15*	01-30-15
Waste Characterization & Acceptance for Disposal		01-30-15*
Obtain Industrial Stormwater NPDES Permit		02-18-15*
(Phase I) Ash Removal - Mobilization	03-23-15*	04-10-15
Site Suitability Report Milestone		03-31-15*
(Phase I) Ash Removal - Erosion Controls / Site Preparation	04-13-15	04-24-15
(Phase I) Load / Haul / Place Ash (12 Months)	04-13-15	04-13-16
Individual Structural Fill Permit		05-29-15*
Dam Safety Approvals		05-29-15*
End Stormwater Discharge to Impoundments		12-31-18*
Impoundments closed per Sections 3.(b) and 3.(c) of the Coal Ash Management Act of 2014		08-01-19*



Note: This Level 1 Schedule is a living element of this Plan. Dates and durations are based on known information on the date of this Plan.

VI. Erosion and Sedimentation Control Plan

The Erosion and Sedimentation Control Plan (E&SC) for the excavation of ash is being developed and planned for submittal by January 30, 2015. The approval of this plan by NC DENR will meet the requirement outlined in the NC DENR Letter.

Any deviations from the current E&SC for Subsequent Phase(s) will be approved by NC DENR prior to installation and initiation of subsequent phase work.

The approved contractor will install the E&SC measures indicated in the plan. The Engineer of Record will review the installation prior to commencing excavation on site. All control measures will be maintained through the project in accordance with the E&SC.

VII. Dewatering Plan

The Sutton ash basins will be dewatered to facilitate the removal of ash and to mitigate risk. Dewatering the free water will improve the physical properties of the retained ash, making it less susceptible to flow in the event of an unexpected dam failure. Engineering analysis has shown that lowering the water below the level of ash within each basin does not improve the factor of safety (FS) against failure of the associated dam; therefore removal of entrapped water is not required.

An Engineered Dewatering Plan for Sutton was developed. This plan details the removal of the following water:

Sequence

1. 1971 Basin – Removal of free water

   Based on data from July 2014, the 1971 Basin contains approximately 362 thousand gallons of free water. The free water in the 1971 Basin will be pumped to the 1984 Basin. The maximum free water drawdown rate will be one foot over seven days. Following free water removal, accumulated stormwater will be removed at a maximum rate of 2 feet over 1 day.

2. Interior Containment Area– Removal of free water

   The 2006 ICA has accumulated an undetermined amount of free water during the summer of 2014. The free water in the 2006 ICA will be drained to the 1984 Basin. The maximum free water drawdown rate will be one foot over seven days. Following free water removal, the accumulated stormwater will be removed at a maximum rate of 2 feet over 1 day.

3. 1984 Basin – Removal of free water

   Based on data from July 2014, the 1984 Basin contains approximately 65 million gallons of free water. The maximum free water drawdown rate will be one foot over seven days. Following free water removal, accumulated stormwater will be removed at a maximum rate of 2 feet over 1 day.

VIII. Proposed Location(s) for Removed Ash

Phase I of the Plan will include the excavation and removal of approximately 2.0 million tons of ash from Sutton. Subsequent Phase(s) will remove the remaining ash at the site. Ash removed from the site will be transported by the contractor to properly permitted facilities. The ash storage placement will be properly managed and maintained to ensure environmental compliance with all applicable rules and regulations.

Phase I: Ash Disposition Sites

For Phase I, Brickhaven Mine located in Moncure, North Carolina has been identified for ash placement. This primary option provides a solution for Phase I and/or Subsequent Phase(s).

Disposition Site	Location	Amount (Tons)	CCR Use
Brickhaven Mine	Moncure, NC	2.0 million	Structural Fill

Brickhaven Mine

The mine is located near the city of Moncure in Chatham County of North Carolina. The mine resides on approximately 299 acres. Its primary mined minerals are clays. Ash will be transported to the mine as a reclamation project. The Brickhaven Mine will comply with the requirements set forth in Sections 4(b) and (c) of the Coal Ash Management Act of 2014.

Contingent Plan: Ash Disposition Sites

In the event of any issues with accepting ash at the Brickhaven Mine, the Sanford Mine has been determined as a suitable site. All necessary steps will be taken to assure that the Sanford Mine is ready to accept ash in the event of any issues at the Brickhaven Mine.

Disposition Site	Location	Amount (Tons)	CCR Use
Sanford Mine	Sanford, NC	2.0 million	Structural Fill

Sanford Mine

The Sanford Mine is located in Sanford, North Carolina. Ash will be transported from Sutton to the Sanford Mine as a reclamation project.

Structural Fill Alternative

In the event the structural fill options are not available, the Anson County Landfill, a permitted solid waste landfill, has been identified as the alternate location. The Anson County Landfill is located in Polkton, NC. Material will be transported by rail.

Subsequent Phase(s): Ash Disposition Sites

The project team will utilize lessons learned from Phase I to develop an off-site disposal strategy and/ or alternative beneficial reuse site(s) that will provide the improvements below.

- Provide a reliable, long-term, cost effective, solution for ash designated for removal
- Develop a supplier diverse Program to drive innovation and competition
- Establish performance baselines and the system to optimize pickup, transport, drop-off and reuse

IX. Transportation Plan

Ash will be transported from the site, via rail car to the off-site facility. Transportation of the CCR will be conducted by approved transporters and meet DOT and other applicable federal, state, and local regulations.

Phase 1: Transportation

For Phase 1, all CCRs will be transported by rail from Sutton to Brickhaven site. Trains will consist of 110 gondola cars at 100 tons per car. One train will leave the site every other day or 3 to 3.5 trains per week on average. The operation of loading rail cars will be completed with a crew working typically 12 hours per day, 7 days per week. Plans are being made to design and install a rail loading system at Sutton that would transport ash to the Brickhaven Mine.

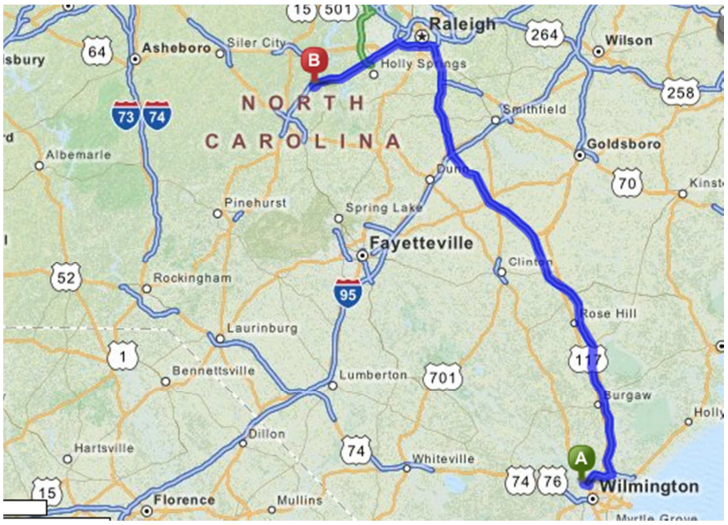


Figure 2: Typical Truck Route to Brickhaven Mine

Contingent Plan: Transportation

To support the transportation of ash for the Contingent Plan, ash will be transported to the Sanford Mine (see Figure 3) instead of the Brickhaven Mine. In the event of rail transportation disruption, truck transportation remains a contingency option for either Brickhaven or Sanford. The workforce, tonnages, and schedules would remain the same as described above.

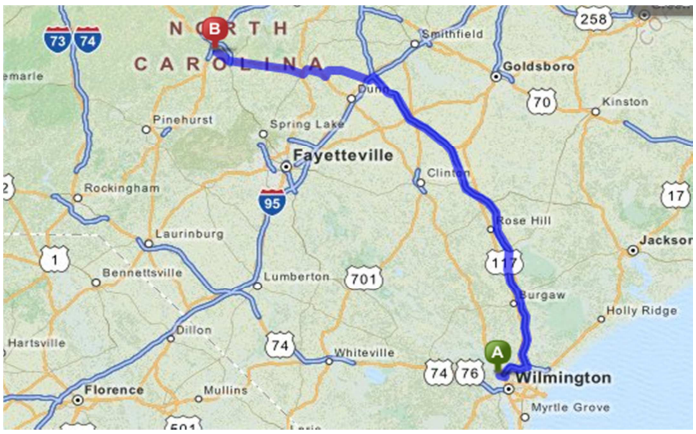


Figure 3: Typical Truck Route to Sanford Mine

Subsequent Phase(s): Transportation

The transportation plan and any other options will be reviewed and could be amended in Subsequent Phase(s) to enhance the excavation process and objectives.

X. Environmental Permitting Plan

Phase I

Phase 1 will include initiating excavation and removal of ash from the 1984 ash basin and the 1971 ash basin to an offsite location. Implementation for Phase I can begin once the permitting for Phase I is in place, although different permitting may be necessary prior to initiating Subsequent Phase work. Phase I will include permitting activities for subsequent phases.

Through the Excavation Plan approval process, Duke Energy is seeking to confirm that all necessary approvals have been identified. The Excavation Plan is intended to authorize the excavation and movement of ash once the identified permits have been obtained.

Excavation of ash creates potential for stormwater impacts. NC DENR has indicated an industrial stormwater permit may be needed. Sutton Plant has no discharges consisting of stormwater only and has therefore not submitted Form 2F applications for industrial stormwater coverage. Stormwater is combined with wastewater and permitted under the current NPDES permit. It is not anticipated that excavation will create new separate stormwater discharges. A stormwater pollution prevention plan (SWPPP) incorporating best management practices (BMPs) will be created, if necessary. Future modifications to the permit/plan will be managed as necessary.

NC DENR has recently indicated that modification of the NPDES wastewater permit may be required to initiate removal of free water from inactive ash basins. The Company is submitting additional information to NC DENR for its consideration to support incorporating dewatering requirements into the pending the Company's pending NPDES permit application. The Company is working with United States Environmental Protection Agency (EPA) and NC DENR with a goal of identifying the regulatory framework that will allow the removal of free-standing water from inactive basins to move forward.

There are no jurisdictional wetlands/streams associated with the removal of ash in the 1984 ash basin and the 1971 ash basin in Phase I. Future wetland/stream impacts and jurisdictional determinations will be managed through the US Army Corps of Engineers with particular attention paid to the difference between jurisdictional wetlands/streams under Section 404 and those arising from Section 402 waters.

Before creation of new mine reclamation structural fills, an individual structural fill permit will need to be obtained by the mine reclamation project owner/operator. It is anticipated that the mining permit will be transferred from the existing mine owner to a

mine reclamation contractor. Once the permit is transferred, the mine reclamation contractor will submit an individual structural permit application and mine reclamation plan to the Division of Mining. It is anticipated that the Division of Mining will then forward the reclamation plan to the Division of Water Resources, Division of Waste Management, and other divisions as necessary, for comments. Subject to any changes from Division of Mining, the revised reclamation plan would be approved and an individual Structural Fill Permit will be issued.

No information currently exists to indicate that the Sutton ash should be treated as a DOT hazardous material shipped via truck or rail.

Subsequent Phase(s) will include dewatering (once NPDES permit modification complete) and continued excavation and removal of ash from the 1984 and 1971 ash basins and the LOLA area. Subsequent Phase(s) also potentially include(s) the construction of an on-site landfill.

Future jurisdictional determinations will be managed through the US Army Corps of Engineers with particular attention paid to the difference between jurisdictional wetlands/streams under Section 404 and those arising from Section 402 waters. Any Section 404 individual permitting will require Section 401 Water Quality Certification by NC DENR.

If used, before shipping ash to a third-party Subtitle D landfill, waste characterization and approval will be completed. All necessary Dam Safety approvals will be obtained to cover activities on or around jurisdictional dams. Breaching of the dams will require Dam Safety approval. Any impacted wells or piezometers will be properly abandoned and dispositioned with NC DENR. Fugitive dust will be managed to mitigate impacts to neighboring areas. Impacts to threatened and endangered species will be avoided.

No additional site-specific or local requirements have been identified.

Phase I Permit Matrix

Media	Permit	Milestone/ Target Date	Reasoning
Water	Industrial Stormwater NPDES Permit	February 18, 2015	Excavation of ash creates potential for stormwater impacts. The facility will seek an approved E&SC and associated Construction Stormwater Permit approval for ash stack removal. NC DENR has indicated an industrial stormwater permit may also be needed. Sutton Plant has no discharges consisting of stormwater only. Stormwater is combined with wastewater and permitted under the current NPDES permit. A SWPPP incorporating BMPs will be created, if necessary.
	Wastewater NPDES Permit – Minor Modification	March 27, 2015	NC DENR has indicated dewatering activities including free water removal, may require NPDES wastewater permit modification. Based on this requirement, Duke Energy is submitting proposed dewatering permit conditions in its pending NPDES permit application.
	Jurisdictional Wetland and Stream Impacts/ 404 Permitting and 401 WQC	N/A	There are no identified jurisdictional wetland/stream impacts in Phase I.
Waste	Dam Safety Approvals	May 29, 2015	Hauling and excavation activities must not impact a jurisdictional dam or dike. Activities are initially staying away from the jurisdictional dike. Removing ash from the 1971 and 1984 Ash Basins will have to be reviewed with Dam Safety. Breaching of dike will require Dam Safety approval.
	Individual Structural Fill Permit	May 29, 2015	Mine Reclamation Owner/Operator to obtain a structural fill permit as set forth in Subpart 3 of Part 2 of Article 9 of the Coal Ash Management Act.
Local Ordinances	Site Specific Nuisance/Noise/Odor/Other Requirements including DOT and FERC Requirements	N/A	No local nuisance requirements identified.

Subsequent Phase(s) Permit Matrix

Media	Permit	Milestone/ Target Date	Reasoning
Water	Industrial Stormwater NPDES Permit	February 18, 2015	Excavation of ash creates potential for stormwater impacts. The facility will seek an approved E&SC and associated Construction Stormwater Permit approval for ash stack removal. NC DENR has indicated an industrial stormwater permit may also be needed. Sutton Plant has no discharges consisting of stormwater only. Stormwater is combined with wastewater and permitted under the current NPDES permit. A SWPPP incorporating BMPs will be created, if necessary.
	Wastewater NPDES Permit – Major Modification	October 30, 2015	NC DENR has indicated dewatering activities including free water removal, may require NPDES wastewater permit modification. Based on this requirement, Duke Energy is submitting proposed dewatering permit conditions in its pending NPDES permit application.
	Jurisdictional Wetland and Stream Impacts/ 404 Permitting and 401 WQC	October 30, 2015	Identify if project scope results in impacts to jurisdictional wetlands or streams. Obtain JD and pursue 404 permit for impacts from ACOE. Also, 404 permits are required for working below the ordinary high water mark. If Federal individual permitting is required, obtain 401 WQC.
Waste	Individual Structural Fill Permit	May 29, 2015	Mine Reclamation Owner/Operator to obtain a structural fill permit as set forth in Subpart 3 of Part 2 of Article 9 of the Coal Ash Management Act.
	Dam Safety Approvals	October 30, 2015	Hauling and excavation activities must not impact a jurisdictional dam or dike. Activities are initially staying 50 feet away from the jurisdictional dike. Breaching of dike will require Dam Safety approval.
	Site Suitability Report	March 31, 2015	Site Suitability anticipated for offsite landfill must go through public comment.
	Permit-to-Construct	December 23, 2015	Must receive permit to begin construction and corresponding E&SC approval to cover approved Construction design.
	Permit-to-Operate	August 1, 2016	Must provide Construction Quality Assurance Report and then received permit before operation.
Local Ordinances	Site Specific Nuisance/Noise/Odor/Other Requirements including DOT and FERC Requirements	N/A	No local nuisance requirements identified.

XI. Contracting Strategy

The Ash Management Program strategy is to engage multiple contractors, to drive competition, system wide innovation and the collection of best practices. During the initial phase (Phase I) of ash removal at Riverbend, L.V. Sutton, Dan River and Asheville, the Company will award the excavation, transportation, and disposal of the Ash to a single contractor for each site. The result may be two to three contractors, with each contractor having responsibility for one, or two sites, working on a firm fixed per ton price basis. The contracting strategy will shift for Subsequent Phase(s), and potentially during Phase 1, as the Company and the selected contractors recognize enhancements that can increase productivity or drive unit cost lower. Duke Energy's core values of safety and quality are non-negotiable and will not be compromised in order to increase productivity or generate cost savings.

In summary, the Company's contracting strategy will provide the most effective combination of ash removal, transportation, disposition, and beneficial reuse options balancing strategic intent, cost, and schedule. The health and safety of workers, the communities, and environment will not be sacrificed to achieve these goals.

XII. Environmental, Health, and Safety Plan

Protecting workers, the public, the community and the environment

The Company is committed to the health, safety and welfare of employees, contractors and the public, and to protecting the environment and natural resources. During all phases of the project work, the Company and its contractors will follow the Company Safe Practices; the ABSAT Environmental, Health, and Safety (EHS) supplement document, and any additional requirements. Occupational health and safety expectations include oversight and continuous improvement throughout the project.

The project will include comprehensive environmental, health and safety plans encompassing all aspects of the project work including at the plant, in transit and at the final destination as needed. The project's commitment is to minimize public and environmental impacts.

XIII. Communications Plan

Many different external stakeholders including neighbors, government officials and media have an interest in this project. For example, there is the potential for facility neighbors and the general public to see or experience construction-related impacts such as truck traffic, landscape changes, or noise. The Company is committed to

providing information by proactively communicating about the Project activities to potentially affected parties and responding to inquiries in a timely manner.

The Project team will coordinate with Duke Energy's Corporate Communications Department to develop a comprehensive external communications plan tailored to the specific needs of each phase of the project.

XIV. Glossary

Term	Definition
ABSAT	Duke Energy organization acronym for Ash Basin Strategic Action Team
Ash Basin	Synonymous with Coal Combustion Residual Impoundment. A topographic depression, excavation, or dammed area that is primarily formed from earthen materials; without a base liner approved for use by Article 9 of Chapter 130A of the General Statutes or rules adopted thereunder for a combustion products landfill or coal combustion residuals landfill, industrial landfill, or municipal solid waste landfill; and an Area that is designed to hold accumulated coal combustion residuals in the form of liquid wastes, wastes containing free liquids, or sludge, and that is not backfilled or otherwise covered during periods of deposition.
Ash Ponds	Coal Combustion Residual stored in wet impoundments, or ponds
Ash Stack	An ash feature external to the ash basin
Beneficial and Beneficial Use	Projects promoting public health and environmental protection, offering equivalent success relative to other alternatives, and preserving natural resources
Bottom Ash	The agglomerated, angular ash particles formed in pulverized coal furnaces that are too large to be carried in the flue gases and collect on the furnace walls. Bottom Ash falls through open grates to an ash hopper at the bottom of the furnace.
Bulk Water	Water above the ash contained in the ash basin. Synonymous with free water
Coal Ash Excavation Plan	Plan required by NC DENR letter dated August 13, 2014 including a schedule for soil and sedimentation erosion control measures, dewatering, and the proposed location of the removed ash
Coal Ash Management Act of 2014	North Carolina Session Law 2014-122
Coal Combustion Residuals (CCR)	Residuals, including fly ash, bottom ash, boiler slag, mill rejects, and flue gas desulfurization residue produced by a coal-fired generating unit
Decanting	The act of removing water from ash
Dewatering	The act of removing bulk and entrapped water from the ash basin

Term	Definition
Dewatering Plan	Engineered plan and the associated process steps necessary to dewater an ash basin
Duke Safe Work Practices	Document detailing the Duke Energy safety guidelines
Engineer of Record	Duke Energy or 3rd party contracted engineer responsible for final verification of specific plan actions and documents
Entrapped Water	Flowable water below the ash surface which creates hydrostatic pressure on the dam
Excavation Activities	Tasks and work performed related to the planning, engineering and excavation of ash from an ash basin
Excavation Plan	Refer to Coal Ash Excavation Plan
Factor of Safety	In reference to dam safety, the ratio of the forces or moments resisting mass movement to the forces or moments tending to produce mass movement
Free Water	Water above the ash contained in the ash basin. Synonymous with bulk water
Fly Ash	Very fine, powdery material, composed mostly of silica with nearly all particles spherical in shape, which is a product of burning finely ground coal in a boiler to produce electricity and is removed from the plant exhaust gases by air emission control devices.
Grading Plan	Document detailing the final elevation, drainage and lay of the excavated area
Level 1 Schedule	Schedule view that shows the main milestones to complete the project
LOLA	Lay of Land Area
NPDES	National Pollutant Discharge Elimination System
NPDES Permit	A permit that regulates the direct discharge of wastewater to surface waters

Term	Definition
Off-Site Facility	A structural fill or mine reclamation for the long term storage of coal combustion residuals
Permitting	Federal, state, county or local government authorizing document

XV. Reference Documents

Ref	Document	Date
1	Letter to Duke Energy, Request for Excavation Plans	August 13, 2014
2	Coal Ash Management Act of 2014	September 20, 2014