



Permit No.	Scan Date	DIN
Duke Energy, Riverbend Steam Station	December 9, 2015	25369

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RECEIVED
December 8, 2015
Solid Waste Section
Asheville Regional Office

December 8, 2015

North Carolina Department of Environmental Quality
Division of Waste Management
Solid Waste Section
2090 U.S. Highway 70
Swannanoa, North Carolina 28778

Attn: Mr. Larry Frost

Re: Ash Transportation Information Plan Submittal
Riverbend Steam Station
Gaston County, North Carolina

Dear Mr. Frost,

Attached you will find the Ash Transportation Information Plan for the Duke Energy Riverbend Steam Station located in Gaston County. This information is being submitted in response to a verbal request from the Division.

A pilot program for ash removal began on May 21, 2015 to transport ash by truck to the Waste Management R&B Landfill in Homer, GA. Ash transport to the landfills located at the Marshall Steam Station in Sherrill's Ford, NC began on July 27, 2015. Initial ash shipments by truck from Riverbend to the Brickhaven Structural Fill in Chatham County, NC began on October 23, 2015. Ash transportation to the R&B Landfill was terminated in September 2015, but the transport of ash to the Marshall Landfill and the Brickhaven Structural Fill is expected to continue into the first quarter of 2016, at which time ash transport by rail to the Brickhaven Structural Fill is anticipated to commence. Additional information concerning the excavation can be found on the Riverbend website at <http://www.duke-energy.com/power-plants/coal-fired/riverbend.asp>.

This submittal is for information only and does not require a formal response from the Division. Please do not hesitate to contact me if you have any questions, comments, or concerns.

Respectfully submitted,

Sean DeNeale
Engineer II
Environmental Services

Attachments: Riverbend Steam Station Ash Transportation Information Plan Rev 0; 12/02/2015

cc (via e-mail): Ed Mussler, NCDEQ
Ed Sullivan, Duke Energy
Jeremy Pruett, Duke Energy
Richard Baker, Duke Energy
Chris Varner, Duke Energy
Brad Loveland, Duke Energy
Kim Hutchinson, Duke Energy

Ash Transportation Information Plan

Riverbend Steam Station

175 Steam Plant Road, Mount Holly, NC

Gaston County



Created by: Ash Basin Strategic Action Team (ABSAT)

December 2, 2015 – Revision 0

1.0 Riverbend Steam Station Ash Transportation Information

The scope of work in this ash transportation plan (Plan) outlines information for the support of excavation and transportation activities from the Dry Ash Stack, the Primary and Secondary Ash Basins, and the Cinder Pit (see Figure 1) located at the Duke Energy Riverbend Steam Station (facility) to the Brickhaven structural fill in Chatham County, North Carolina (Brickhaven), Marshall Steam Station Landfills in Catawba County North Carolina (Marshall Landfills), and R&B Landfill in Homer, Georgia (R&B Landfill).

Excavation, loading, transportation and disposal services will be performed by Duke contractor(s). The work area utilizes existing and newly constructed Ash Stack and Ash Basin haul roads incorporated with a newly constructed rail yard and rail car loading area. Ash from the facility will be transported as outlined in the Riverbend Steam Station Coal Ash Excavation Plan acknowledged by the North Carolina Department of Environmental Quality (NCDEQ) on February 2, 2015, with alternate landfill and structural fill locations approved by NCDEQ Solid Waste..

The precise scope of work in excavating the ash basins and transporting ash is determined by applicable laws, rules, permits, and approvals that control the activities to be performed under the Plan. There are several external and internal factors that could potentially affect the precise scope of the work to be performed under the Plan in Phase I. Accordingly, it may be necessary for Duke Energy to take actions in the future, which deviate from the Plan. Duke Energy reserves the right to make these changes after prior written notification to NCDEQ.



Figure 1 – Riverbend Steam Station General Site Plan

2.0 Excavation and Loading

Excavation, loading, and transporting activities at the facility will occur in accordance with required regulatory permits.

- Erosion and Sediment Control (E&SC) measures will be maintained throughout the project.
- Storm water run-off from the Ash Stack and load-out areas are contained within the ash basin system and either flows to the Primary Ash Basin, or is captured and pumped to the Primary Ash Basin.
- The contractor will conduct work in accordance with their Health and Safety Plan (HASP), including the Material Transport Job Hazard Analysis (JHAs). The HASP and JHAs have detailed procedures to mitigate potential hazards anticipated for the project.

2.1 Excavation, loading, and transport by truck:

General truck loading activities include but are not limited to the following tasks:

- Excavation of material from ash stack is conducted with an excavator and loaded in off-road dump trucks for transport the truck load-out area.
- Off-road dump trucks travel to the load-out pad area the entrance ramp, deposit the ash, leave the pad using the exit ramp and proceed back to the ash stack area.
- Operators use spotters, horn signals, and three-part radio communications when staging off-road dump trucks in the ash excavation area and the load-out area. If communication is unclear, employees are instructed to call an all-stop until absolute clarity can be obtained.
- Federal DOT certified and inspected highway trucks will be loaded with CCPs by loader at the designated load out.
- Trucks will retract tarps at the loading zone.
- Haul truck will be proportionately loaded from the driver's side without pushing material in bed and allowing for the load to be fully covered by tarp.
- Ash will be loaded proportionally and to a level of the truck bed that the tarp will not touch the bed material.
- Once the trucks are loaded and loader operator signals for truck to exit loading zone, the operator will activate automatic placement of tarp to cover load. Trucks will lower their drop axles at this location before proceeding to the truck wash.
- Trucks will be weighed on site utilizing the existing truck scale before departing onto state roads at which time a weigh ticket will be issued to the driver. The truck load will be confirmed to be within approved limits before allowing to leave site.
- Upon exiting site, trucks are to follow the Primary transportation route to safely guide transportation to the receiving facility.
- In the event that unforeseen delays or adverse conditions make for unsafe travel, trucks will stop at approved stopping locations and will continue on route once approved (see Incident Notification Cards for communication procedures). Any trucks that have not departed from site will remain at respective site until

- safe travel conditions are restored.
- If a truck is over loaded, the truck will be directed to a designated unloading area. There the truck will unload and return to the loading zone to be reloaded.

2.2 Excavation, loading, and transport by rail:

General rail loading activities include but are not limited to:

- The rail loading area will be fed by an access ramp directly from the ash stack to the rail loading area.
- Ash will be placed in stockpiles adjacent to the track for loading of rail cars.
- Railcars will arrive at Riverbend with fiberglass tops attached.
- Ash will be loaded into each rail car by a front end loader.
- Material will be loaded and kept below the top of the rail car to ensure the fiberglass top system will close and be secure.
- Visual inspection of the ash is performed by the loading operator to ensure consistency.
- When the rail car is fully loaded, top will be placed and secured to the car.
- A final inspection of each train will be documented and signed-off prior to the train being released to CSX for transportation to Brickhaven.
- Inspection will include verification of: top closure, and no ash is outside of the rail car. Incidental amounts of ash present in areas outside of the rail car will be removed by hand using a broom or other equipment appropriate for the task.
- The weight of each rail car will be measured upon exit using a coupled-in-motion rail scale, approved by CSX, located on the Duke Energy Riverbend property.

4.0 Environmental Controls

4.1 Truck wash

- A truck wash station will be utilized to ensure that all haul trucks leaving the facility are free of displaced ash material. The truck wash station includes an automated truck wash system.
- In the event the automated truck wash system is inoperable, a manual wash procedure is utilized.
- Trucks are inspected to verify there is no ash outside of the truck prior to leaving the site.

4.2 Dust Control

- Water will be the primary method of dust suppression at the facility with application via water truck. Polymer based alternate cover material may be utilized for dust suppression if conditions dictate need.
- Water will be applied to gravel haul roads and work areas via water truck as needed to mitigate fugitive dust.

4.3 Spill prevention and clean-up

- Routine inspections occur during hours of operation to identify spills or areas of potential spills.
- Displaced ash will be removed within 24 hours.

5.0 Hauling Routes and Destinations

Typical haul routes are shown below. Road hazard, weather, or other conditions may dictate temporary alternate routes.

- In the event of an accident or incident resulting in displaced ash once off Duke Energy property, the contractor is responsible for cleanup, and has emergency responders on call.
- If an emergency or spill occurs, notifications will be made according to the contractor's emergency response plan which is summarized in the call tree included as Figure 6.

5.1 Truck transportation to Marshall Landfill

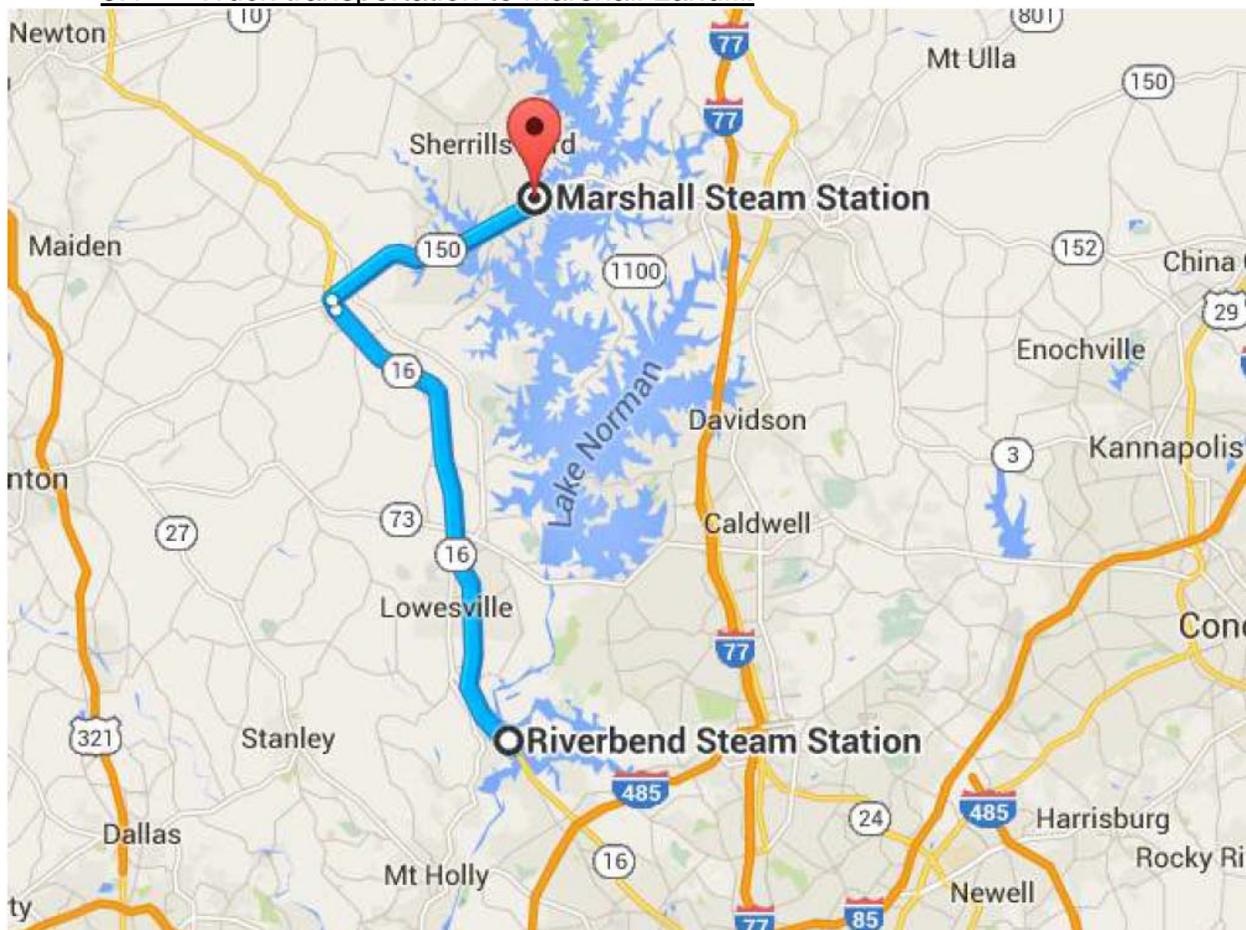


Figure 2 – Riverbend to Marshall Steam Station Typical Truck Haul Route

5.2 Truck Transportation to Waste Management R&B Landfill

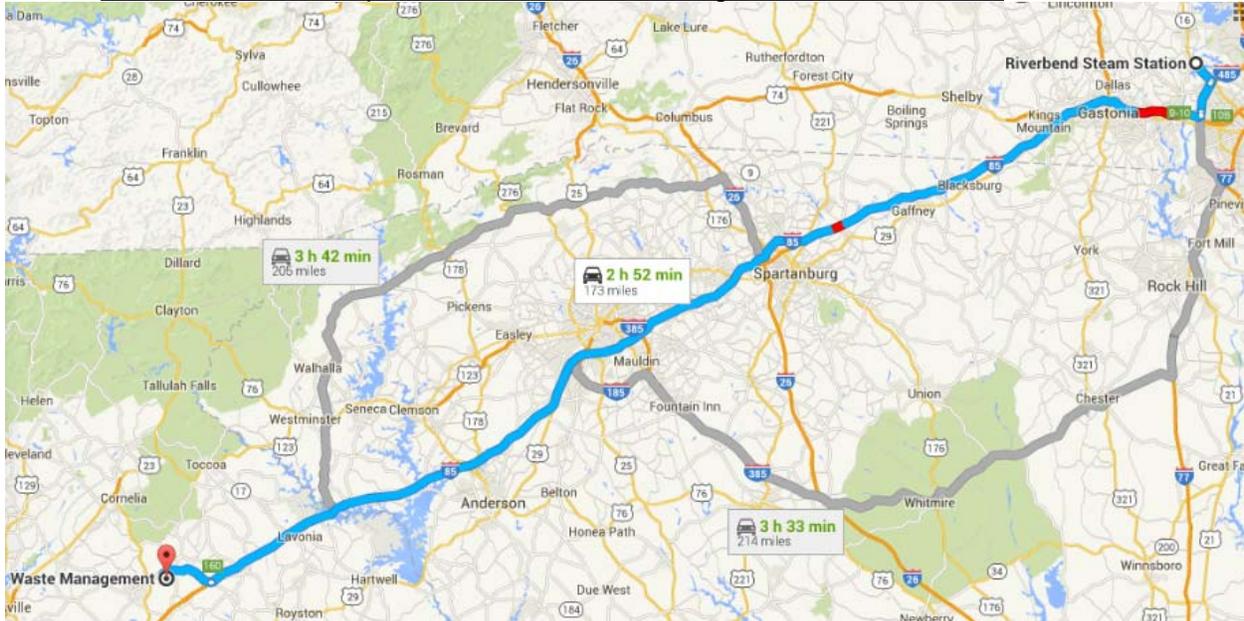


Figure 3 – Riverbend to Waste Management R&B Landfill - Typical Truck Haul Route

5.3 Transportation to Brickhaven

5.3.1 Truck transportation to Brickhaven

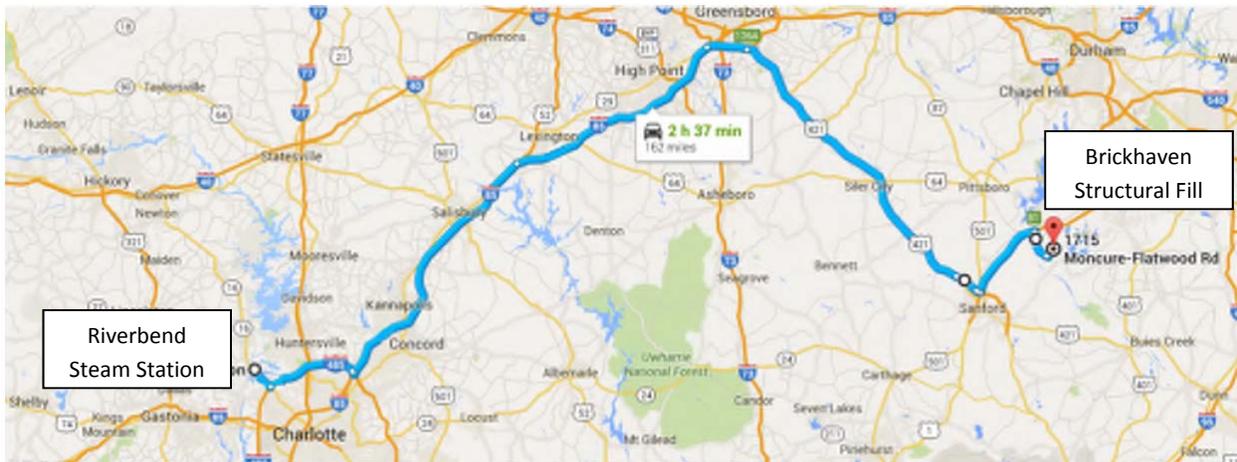


Figure 4 – Riverbend to Brickhaven Typical Truck Haul Route

5.3.2 Rail transportation to Brickhaven

Rail hauling operations from the facility to the Brickhaven Structural Fill is anticipated to occur with a maximum train length of 86 - car unit trains, averaging 3.5 complete trains per week. Rail hauling activities will include but is not limited to:

- CSX will conduct work in accordance with regulatory requirements.
- CSX train crews will perform a Class I Brake Inspections (air and mechanical) prior to pulling the train offsite.

- Trains will follow the route shown on Figure 5.

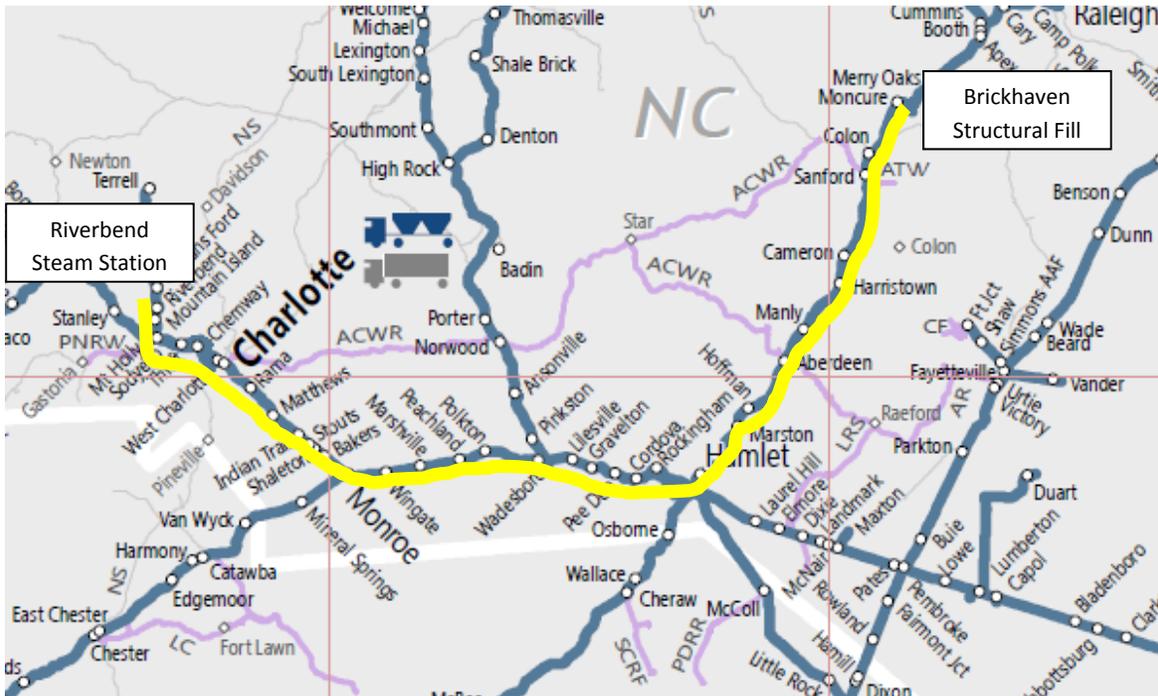


Figure 5 – Riverbend to Brickhaven CSX Rail Haul Route

**Duke Energy – Riverbend Steam Station
Ash Basin Strategic Action Team - Ash Spill Response Tree**

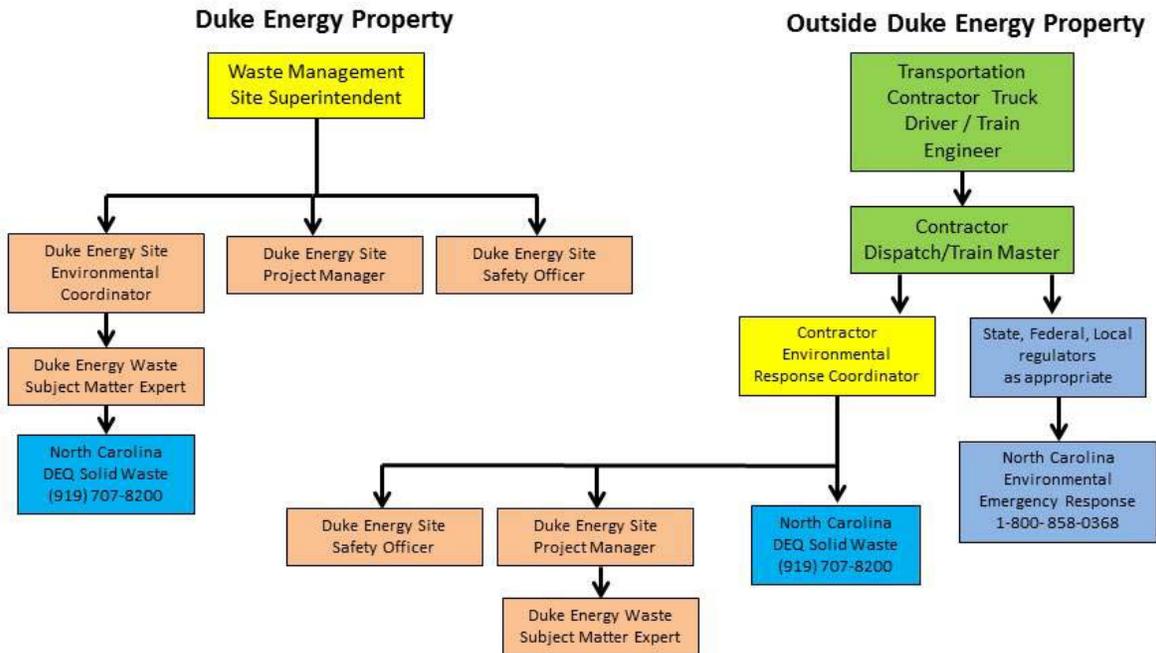


Figure 6 –Riverbend Spill Response Call Tree [KWH1]

Emergency Response Coordinators Along Transportation Routes

North Carolina County Emergency Coordinators Along Routes	
Anson	704-994-3272
Cabarrus	704-920-2143
Catawba	828-465-8232
Chatham	919-542-2911
Cleveland	704-484-4841
Davidson	336-242-2270
Gaston	704-866-3350
Guilford	336-641-2278
Lee	919-775-3941
Lincoln	704-736-8660
Mecklenburg	704-336-2412
Moore	910-947-6317
Randolph	336-318-6911
Richmond	910-997-8238
Rowan	704-638-0911
Union	704-283-3536

South Carolina County Emergency Coordinators Along Routes	
Anderson	(864) 332-5751
Cherokee	(864) 487-2590
Greenville	(864) 467-2680
Oconee	(864) 638-4200
Spartanburg	(864) 595-5366

Georgia County Emergency Coordinators Along Routes	
Banks	706-677-3163
Franklin	706-384-7118
Hart	706-376-3930