



FACILITY COMPLIANCE INSPECTION REPORT
Division of Waste Management
Solid Waste Section

UNIT TYPE:											
Lined MSWLF		LCID		YW		Transfer		Compost		SLAS	COUNTY: CATAWBA PERMIT NO.: 1809-INDUS- FILE TYPE: COMPLIANCE
Closed MSWLF		HHW		White goods		Incin		T&P		FIRM	
CDFL		Tire T&P / Collection		Tire Monofill		Industrial Landfill	X	DEMO		SDTF	

Date of Site Inspection: June 30, 2016 **Date of Last Inspection:** September 22, 2015

FACILITY NAME AND ADDRESS:

Duke Energy Carolinas, LLC - Marshall Steam Station
 Flue Gas Desulfurization (FGD) Residue Landfill
 8320 East NC Highway 150
 Terrell, North Carolina 28682

GPS COORDINATES: N: 35.60463 W: -80.9774

FACILITY CONTACT NAME AND PHONE NUMBER:

Tyler Hardin, 980-373-5697, tyler.hardin@duke-energy.com

 Kim Witt, 336-215-4576, kimberlee.witt@duke-energy.com

FACILITY CONTACT ADDRESS:

Same as above

PARTICIPANTS:

Kyle Baucom – Duke Energy
 Tim Russell – Duke Energy
 Jeff Jones – Duke Energy
 Chris Randazzo – Duke Energy
 Tyler Hardin – Duke Energy
 Scott LaSalla – Duke Energy
 Shawn McKee – NCDEQ, Solid Waste Section
 Larry Frost – NCDEQ, Solid Waste Section
 Elizabeth Werner – NCDEQ, Solid Waste Section

STATUS OF PERMIT:

Original Permit to Construct	April 12, 2006
Modification PTC: HDPE Liner and Cap System	May 22, 2006
Permit to Operate: Phase 1, Cell 1	November 21, 2006
Permit to Operate: Amendment – Five (5) Year Renewal	May 18, 2012
Permit to Operate: Modification, Chimney Drains	December 6, 2013

PURPOSE OF SITE VISIT:

Comprehensive Inspection

STATUS OF PAST NOTED VIOLATIONS:

None.

OBSERVED VIOLATIONS:

None.

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The item(s) listed above were observed by Section staff and require action on behalf of the facility in order to come into or maintain compliance with the Statutes, Rules, and/or other regulatory requirements applicable to this facility. Be advised that pursuant to N.C.G.S. 130A-22, an administrative penalty of up to \$15,000 per day may be assessed for each violation of the Solid Waste Laws, Regulations, Conditions of a Permit, or Order under Article 9 of Chapter 130A of the N.C. General Statutes. Further, the facility and/or all responsible parties may also be subject to enforcement actions including penalties, injunction from operation of a solid waste management facility or a solid waste collection service and any such further relief as may be necessary to achieve compliance with the North Carolina Solid Waste Management Act and Rules.

ADDITIONAL COMMENTS

The facility is an industrial landfill permitted to receive the following waste generated at the facility: gypsum, clarifier sludge, fly ash, bottom ash, construction and demolition debris, mill rejects (pyrites), limestone material, land clearing and inert debris, boiler slag, ball mill rejects, sand blast material, and coal waste. This facility is permitted to receive solid waste generated by or at any Duke Energy Corporation property, as described in the approved plan and as defined in G.S. 130-290 (a)(2b), except where prohibited by the N. C. General Statutes Article 9 of Chapter 130A, and the rules adopted by the Environmental Management Commission.

1. The Permit and Operations Plan are maintained on-site as required and were reviewed during the inspection.
2. The Permit to Operate expires November 21, 2016. A permit renewal application has been submitted to the Solid Waste Section.
3. The facility is operated by Charah, Inc. which is responsible for hauling materials to the landfill, daily operations of the landfill, and conducting other associated activities.
4. Weekly logs of onsite inspections are maintained documenting monitoring and maintenance of storm water conveyance systems, erosion and sedimentation controls, and status/confirmation of repairs.
5. Environmental monitoring records were reviewed during the inspection. Semi-annual sampling of groundwater, surface water, and leachate was conducted September 14&15, 2015 and March 31, 2016 [Monitoring wells MS-8, MS-9, MS-10, MS-11, MS-12, MS-13, MS-14, MS-15, MS-16, Surface Water sampling point SW-1, and Leachate sampling point C1].
6. Dust Control records were reviewed during the inspection. The records were complete and well documented.
7. Charah, Inc. personnel are responsible for daily landfill operations; certified staff are always present when the landfill is in operation. Training records were documented and maintained on-site. The following Charah personnel are NC Certified Landfill Managers:
 - Sam Byrd, 13-02M-00093, expires 9/19/16
 - Chris Emory, 13-02M-00079, expires 7/23/2016
 - Steven Faussete, 13-02M-000114, expires 7/23/17
 - Steve Avery, 16-02M-00160, expires 5/20/2019
 - David Vanuiken, 16-02M-00161, expires 5/20/2019
 - Jeffery Lomax, 15-02M-00154, expires 12/3/2018
 - Ben Hildebran, 15-02M00151, expires 12/3/18
 - Walter Fox, 13-02M-0092, expires 9/19/2016
8. The facility annual report was received on July 24, 2015. A total of 397,893.82 tons of waste were placed in the landfill during FY 2014-2015. The next annual facility report is due August 1, 2016.
9. Financial assurance documentation for the facility was reviewed during the inspection. The financial assurance was submitted by Duke Energy Carolina on March 22, 2016. The approved financial assurance includes \$5,196,021 for closure, \$1,622,371 for post-closure care, and \$2,000,000 for potential assessment and corrective action.

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10. Proper signage is posted at both entrances to the facility in accordance with the approved operations plan.
11. A directional and a sample point sign have been installed for the surface water sample point designated SW-1.
12. Waste is not being placed in the landfill at this time. The last waste acceptance was on October 18, 2015. Interim cover has been established on the landfill.
13. The access road to the site was of all-weather construction and maintained in good condition. A truck wash station has been installed to clean trucks exiting the site.
14. Edge-of-waste markers delineating the permitted disposal area were visible and maintained in good condition. The markers are offset from the edge of the landfill liner.



Top of landfill with interim cover

15. Measured rainfall during the previous 24 hours was over 2 inches however no water was observed ponded on the top of the landfill.
16. Leachate Management: Leachate is transmitted via the collection system to the lined stormwater storage basin located within the permitted landfill footprint. Leachate and stormwater are routed to the Marshall Ash Basin (wet). Three chimney drains have been installed in the center of the landfill to convey leachate to the sump in the storm water storage basin.
17. The lined storm water storage basin within the footprint of the landfill appeared to be operating as designed.
18. Leachate line cleaning was accomplished on 2/22/16; no deficiencies were noted. The Operations Plan states that "LCS pipes will be cleaned out by the use of a clean-out snake or high-pressure water flushing at least once a year, and the LCS piping will remote-camera monitored if cleaning indicates a blockage in the leachate collection system pipes."

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19. Exterior landfill slopes were vegetated. There was no significant erosion observed on exterior landfill slopes.

Please contact me if you have any questions or concerns regarding this inspection report.



Shawn McKee
Environmental Senior Specialist
Regional Representative

Phone: 919-707-8284

Sent on: July 15, 2016		Email: X		Hand delivery		US Mail		Certified No. []
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Copies: Ellen Lorscheider, Section Chief, Solid Waste Section
Ed Mussler, Permitting Branch Head, Solid Waste Section
Jason Watkins, Field Operations Branch Head, Solid Waste Section
Elizabeth Werner, Permitting Hydrogeologist, Solid Waste Section
Larry Frost, Engineering Project Manager, Solid Waste Section