



**FACILITY COMPLIANCE INSPECTION REPORT**  
**Division of Waste Management**  
**Solid Waste Section**

UNIT TYPE:											
Lined MSWLF		LCID		YW		Transfer		Compost		SLAS	<b>COUNTY: CATAWBA</b> <b>PERMIT NO.: 1812-INDUS-2008</b> <b>FILE TYPE: COMPLIANCE</b>
Closed MSWLF		HHW		White goods		Incin		T&P		FIRM	
CDLF		Tire T&P / Collection		Tire Monofill		Industrial Landfill		DEMO		SDTF	

**Date of Site Inspection:** July 16, 2015 **Date of Last Inspection:** 2/20/2014 (routine) and 3/7/2014 (follow-up)

**FACILITY NAME AND ADDRESS:**

Duke Energy Carolinas, LLC - Marshall Steam Station  
 Industrial Landfill No. 1  
 8320 East NC Highway 150  
 Terrell, North Carolina 28682

**GPS COORDINATES:** N: 35.616972 W: -80.969116

**FACILITY CONTACT NAME AND PHONE NUMBER:**

Tim Russell, 828-478-7622, [Tim.Russell2@duke-energy.com](mailto:Tim.Russell2@duke-energy.com)

Kim Hutchinson, 336-215-4576, [Kim.Hutchinson@duke-energy.com](mailto:Kim.Hutchinson@duke-energy.com)

**FACILITY CONTACT ADDRESS:**

Same as above

**PARTICIPANTS:**

- Kim Hutchinson, PE – Duke Energy
- Kyle Baucom – Duke Energy
- Tim Russell – Duke Energy
- Margie Barnes – Duke Energy
- Chris Randazzo – Duke Energy
- Tyler DuBose – Duke Energy
- Scott LaSalla – Duke Energy
- Shawn McKee – NCDENR, Solid Waste Section
- Larry Frost – NCDENR, Solid Waste Section
- Elizabeth Werner – NCDENR, Solid Waste Section
- Deb Aja – NCDENR, Solid Waste Section
- Shannon Aufman – NCDENR, Solid Waste Section

**STATUS OF PERMIT:**

Permit Type	Date Issued
Site Suitability approved.	July 27, 2009
Permit to Construct – New Permit, Phase 1, Issuance of the original Permit.	February 25, 2010
Permit to Operate – Modification, Phase 1 – Cells 1 and 2	March 7, 2011
Permit to Operate – Revision, Ops Plan Revised to Add Dust Control Plan	April 7, 2014
Permit to Operate – Revision, correction to inconsistent permit expiration dates.	March 25, 2015
Permit to Operate – Modification, Service Area	July 8, 2015

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**PURPOSE OF SITE VISIT:**

Comprehensive Inspection

**STATUS OF PAST NOTED VIOLATIONS:**

15A NCAC 13B .0203(d) states: "By receiving solid waste at a permitted facility, the permittee(s) shall be considered to have accepted the conditions of the permit and shall comply with the conditions of the permit."

General Permit Condition Number 6 states:

"Operation of this solid waste management facility must be in accordance with the Solid Waste Management Rules, 15A NCAC 13B, Article 9 of the Chapter 130A of the North Carolina General Statutes (NCGS 130A-290, et seq.), the conditions contained in this permit; and the approved plan. Should the approved plan and the rules conflict, the Solid Waste Management Rules shall take precedence unless specifically addressed by permit condition."

The approved Operations Plan dated November 13, 2013, *Section 2.3.1 LCS Maintenance*, states in part:

"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."

On March 7, 2014, leachate collection system pipes were cleaned and remote-camera monitored. **The observed violation noted during the 2/20/2014 inspection has been resolved. Correspondence from the SWS dated March 31, 2014 also confirmed resolution.**

**OBSERVED VIOLATIONS**

None.

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 waste generated by any Duke Energy Corporation. Waste types include, but are not limited to: coal combustion residuals, asbestos, construction and demolition debris, land clearing and inert debris, coal mill rejects, waste limestone material, and remediation wastes 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 Marshall Steam Station Industrial Landfill No. 1 is constructed on a Coal Combustion By-Products structural fill built in accordance with the requirements specified in North Carolina Administrative Code 15A NCAC 13B .1700 which is utilized as subgrade to the landfill. This structural fill is identified as CCB0072.
2. The Permit and Operations Plan are maintained on-site as required and were reviewed during the inspection. The permit shall expire March 7, 2016. **No later than September 7, 2015, the owner or operator must submit a request to the Section for permit review.**

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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. Leachate is sampled semiannually from dedicated sample ports located on the leachate collection system. Access to the sampling ports for Cell 1 and Cell 2 and the areas surrounding the ports were well maintained. Semi-annual leachate sampling records were reviewed during the inspection. The sampling was conducted in February, 2015 and September, 2014 as required.

<b>1812-INDUS-2008: Industrial Landfill #1</b>
no monitoring wells required, double lined w/ LCS and LDS leachate collected semi-annually, leachate ports look good

6. Leak detection records were reviewed during the inspection. Leachate collection system and detection system flow readings were conducted monthly as required. No leakage rate exceedances were documented in the records reviewed. Once the landfill reaches 40 feet the flow readings will be conducted quarterly.
7. Dust Control records were reviewed during the inspection. The records are not well organized and some were falling out of the 3 ring binder. **The records should be reviewed and organized.**
8. Leachate collection system pipes were cleaned out with camera monitoring on 3/4/2015. 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.”
9. 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  
    Jenson “Jay” Shults, 13-02M-00081, expires 7/23/2016  
    Chris Emory, 13-02M-00079 , expires 7/23/2016  
    Steven Faussete, 13-02M-000114, 7/23/17
10. The facility annual report was received on July 24, 2015. A total of 0 tons of waste were placed in the landfill during FY 2014-2015; all waste is currently being placed in the FGD Landfill, Permit 18-09.
11. An annual volume survey was conducted on 4/1/2015. A total of 462,437.71 tons of capacity was reported used as of the survey date.
12. Landfill Operations have occurred in Phase 1, Cells 1 and 2. Filling activities have temporarily ceased in both cells and wastes are being placed in the FGD Landfill, Permit 18-09. The landfill has a temporary soil cover to with established vegetation which was well established at the time of the inspection.
13. The access road to the site was of all-weather construction and maintained in good condition. A truck wash station is located adjacent to the haul road to clean trucks exiting the site when operations resume.
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.

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Top of the landfill with interim cover (on left). Future expansion (on right).

15. There was no water observed ponded over waste.
16. Chimney drains convey the flow of leachate to the leachate control system.
17. Dust was well controlled at the time of the inspection.
18. Exterior landfill slopes were vegetated. There was no erosion observed on exterior landfill slopes. Reseeding is done as needed.



CCB0072 - Area of Possible Slope Nonconformity

19. On June 10, 2015, Duke Energy notified the SWS of an apparent bulge or non-conformity of the southwest corner of the covered Structural Fill (CCB0072) in the future Cell 3/4 Industrial Landfill area at Marshall Station. Per the investigation plan, approved by the SWS on June, 11, 2015, AECOM Geotechnical Engineers performed a field investigation of the area. In a memorandum dated July 16, 2015, AECOM concluded that there was no evidence that a significant slope failure had occurred or was imminent. They recommended regrading the area to minimize future infiltration in the area and restabilization with vegetation. At the time of the inspection, the area had been regraded but not yet reseeded. **Disturbed areas should be reseeded and vegetation sufficient to control erosion must be established. The area should be monitored weekly for any indication of exposed ash or instability.**

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

  
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Phone: 919-707-8284

Environmental Senior Specialist  
***Regional Representative***

<b>Sent on:</b> August 18, 2015		Email: X		Hand delivery		US Mail		Certified No. <input type="checkbox"/>
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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
- Deb Aja, Western District Supervisor, Solid Waste Section
- Elizabeth Werner, Permitting Hydrogeologist, Solid Waste Section
- Larry Frost, Engineering Project Manager, Solid Waste Section
- Jessica Montie, Compliance Officer, Solid Waste Section