



# FACILITY COMPLIANCE INSPECTION REPORT

## Division of Waste Management

### Solid Waste Section

UNIT TYPE:											
Lined MSWLF		LCID		YW		Transfer		Compost		SLAS	COUNTY: Gaston PERMIT NO.: 3612-INDUS-2008 FILE TYPE: COMPLIANCE
Closed MSWLF		HHW		White goods		Incin		T&P		FIRM	
CDLF		Tire T&P / Collection		Tire Monofill		Industrial Landfill	<input checked="" type="checkbox"/>	DEMO		SDTF	

**Date of Site Inspection:** June 10, 2016      **Date of Last Inspection:** June 16, 2015

**FACILITY NAME AND ADDRESS:**

Duke Energy, Allen Steam Station – Retired Ash Basin (RAB) Landfill  
253 Plant Allen Road  
Belmont, NC 28012

**GPS COORDINATES:** N: 35.18295    W: -81.00979

**FACILITY CONTACT NAME AND PHONE NUMBER:**

Randall Scott (Scott) Harris, 704-829-2629 (o), [Randall.Harris@duke-energy.com](mailto:Randall.Harris@duke-energy.com)

Sean DeNeale, 704-382-4761, [Sean.DeNeale@duke-energy.com](mailto:Sean.DeNeale@duke-energy.com)

**FACILITY CONTACT ADDRESS:**

Same as above

**PARTICIPANTS:**

- Shawn McKee, NCDEQ, Solid Waste Section
- Elizabeth Werner, NCDEQ, Solid Waste Section
- Larry Frost, NCDEQ, Solid Waste Section
- Sean DeNeale, Duke Energy
- Kyle Baucom, Duke Energy
- Scott Harris, Duke Energy
- Randy Gantt, Duke Energy
- Mary Parlemon, Duke Energy

**STATUS OF PERMIT:**

Permit to Construct: issued 9/2/2008  
 Original Permit to Operate: Phase 1, Cells 1, issued 12/9/2009  
 Permit to Operate: Amendment – 5 Year Renewal, issued 12/9/2014  
**Permit Expires: 12/09/19**

**PURPOSE OF SITE VISIT:**

Comprehensive Inspection

**STATUS OF PAST NOTED VIOLATIONS:**

None.

**OBSERVED VIOLATIONS**

None.

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

Page 2 of 2

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 combustion products / residuals consisting of fly ash, bottom ash, boiler slag, mill rejects and flue gas desulfurization (FGD) residue generated by Duke Energy Carolinas, LLC. The Permit to Operate shall expire December 9, 2019. A request for permit review must be submitted to the Section no later than June 9, 2019.

- 1) The facility permit, site plan, and operations plan were discussed during the inspection. The retired ash basin (RAB) landfill is located within the footprint of an older, closed RAB for the Allen Steam Station. The older, closed RAB has not been in use since the 1970's. Current Life-of-Site permitting changes and their potential effect on re-permitting in 2019 were discussed during the inspection. The requirement for environmental justice and the effect on future permitting was also discussed during the inspection.
- 2) The retired ash basin (RAB) landfill has been constructed on top of two engineered structural fills (identified as CCB0020 and CCB0073 in Section records) which were built in accordance with NCAC 13B .1700. Currently, there are not any construction or expansion plans for the landfill.
- 3) Ash is currently being placed in Cell 2B of Phase 1. Cells 1 and 2A have been covered and are well vegetated. Nearly all (approximately 98%) of the ash being landfilled is fly ash. Other materials include FGD gypsum that does not meet specifications for reuse and waste water treatment sludge. The total tonnage disposed of in the landfill between January 1 and May 31, 2016 is 24,727.49 tons. No ash was placed in the landfill during the inspection.
- 4) Nearly all of the FGD gypsum being produced by the Allen Steam Station is sent offsite for the manufacturing of wallboard rather than landfilled. Only off-spec gypsum is landfilled.
- 5) 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 \$3,484,574 for closure, \$1,497,199 for post-closure care, and \$2,000,000 for potential assessment and corrective action.
- 6) Internal inspections of the landfill are performed weekly. These reports were reviewed during the inspection.
- 7) The leachate collection system records are current and complete for the last 12 months, no issues found.
- 8) A weekly system check is performed on the leak detection alarm system. Logs from the leachate system were reviewed during the inspection. The leak detection system records are current and complete for the last 12 months, no issues found.
- 9) Leachate sampling was performed on March 2, 2015 and September 8, 2015.
- 10) All required quality assurance compaction testing (Field Density) appears to be complete, and passed. These records are maintained by Charah, Inc.

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

Page 3 of 3

11) The following Charah, Inc. personnel are NC Certified Landfill Managers:

<b>Name</b>	<b>Certification</b>	<b>Expiration Date</b>
Walter Fox	Landfill Manager	9/19/16
Chris Emory	Landfill Manager	7/24/19
Steve Faussete	Landfill Manager	7/23/17
Richard Smith	Landfill Manager	4/22/18
Sam Byrd	Landfill Manager	9/19/16

Additional Duke Energy personnel are certified but not listed on the report. Charah personnel are responsible for landfill operations; certified staff are always present when the landfill is in operation.

- 12) Chimney drains have been installed on the top of Cell 2 of Phase 1 to collect and direct precipitation that contacts the coal ash to the leachate collection system.
- 13) Dust is being well controlled at the landfill. Dust control records were reviewed during the inspection.
- 14) The access roads for the landfill are well maintained.
- 15) An additional gate has been added on the haul road at the toe of the landfill for additional security while the landfill is not operating. A manned gate limits unauthorized access to the facility at the main entrance to the Allen Steam Station.
- 16) Both the edge of waste and the edge of liner are identified with white PVC markers.
- 17) Duke Energy monitors the landfill annually for the presence of methane and hydrogen sulfide gas.
- 18) The northern, western and southern side slopes of the landfill are sloped at a 3 to 1 ratio and have an established vegetative cover. Over seeding and fertilization is planned for next spring.
- 19) The active area of the landfill is being well maintained. Vegetated berms surround the uncovered ash to help direct contact water into chimney drains and prevent ash from migrating down side slopes.



Active area of the landfill (Cell 2B)

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

Page 4 of 4

20) The perimeter stormwater ditches are free of excessive sediments and well maintained.

21) During the inspection in June 2015, Section staff observed that a portion of station access road southwest of the station was constructed of uncovered fly ash causing vertical plumes of dust when the road was used by vehicles. The ash on this road has been covered to prevent dust. No dust was observed coming from this access road during the June 10, 2016 inspection.

Please contact me if you have any questions or concerns regarding this inspection report. The sediment basin on the south side of the landfill is operating as designed.



Phone: 919-707-8284

Environmental Senior Specialist  
***Regional Representative***

<b>Sent on:</b> 6//23/16		Email: X		Hand delivery		US Mail		Certified No. [ ]
-----------------------------	--	-------------	--	---------------	--	---------	--	-------------------

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  
Jessica Montie, Compliance Officer, Solid Waste Section