



FACILITY COMPLIANCE INSPECTION REPORT
Division of Waste Management
Solid Waste Section

UNIT TYPE:										
Lined MSWLF		LCID		YW		Transfer		Compost	SLAS	COUNTY: GASTON PERMIT NO.: 36-12I 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: 05/14/14

Date of Last Inspection: 12/27/13 and 1/13/14

FACILITY NAME AND ADDRESS:

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

GPS COORDINATES: N: 35.18295° E: -81.00979°

FACILITY CONTACT NAME AND PHONE NUMBER:

Don Scruggs
 (704) 829-2423 Office (704) 400-3005 Cell
 don.scruggs@duke-energy.com
 Fax: (704) 829-2370

FACILITY CONTACT ADDRESS:

Same as Above

PARTICIPANTS:

Don Scruggs – Duke Energy
 Bill Wagner – NCDENR, Solid Waste Section

STATUS OF PERMIT:

Permit to Operate: Allen Steam Station / Retired Ash Basin (RAB) Phase 1, Cells 1 & 2 (DIN 14135)
 Issued: 6/16/2011 Expires: 12/09/14

PURPOSE OF SITE VISIT:

Comprehensive Compliance Inspection

STATUS OF PAST NOTED VIOLATIONS:

1. 15A NCAC 13B .0505 states, in part that, *any person who maintains or operates a sanitary landfill site shall maintain and operate the site in conformance with the permit.*
Violation Corrected.

2. 15A NCAC 13B .0505(4) states that:
 (a) Adequate erosion control measures shall be practiced to prevent silt from leaving the site
 (b) Adequate erosion control measures shall be practiced to prevent excessive on-site erosion.
Violation Corrected.

3. 15A NCAC 13B .0505(6) states that temporary seeding will be utilized as necessary to stabilize the site.
Violation Corrected.

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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 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.

SITE HISTORY:

1. 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.
2. The landfill is permitted to receive combustion products / residuals consisting of fly ash, bottom ash, boiler slag, mill rejects and flue gas desulfurization (FGD) residue generated from the Allen Steam Station plant.
3. At the time of construction, the projected life of the RAB landfill was approximately 12-years.
4. The retired ash basin (RAB) landfill has been constructed on top of a former structural fill landfill.
5. Due to the future waste projections, an operating decision was made to temporarily close Cell 1.



Figure 1.

ADDITIONAL COMMENTS

6. The landfill is permitted to receive combustion products / residuals consisting of fly ash, bottom ash, boiler slag, mill rejects and flue gas desulfurization (FGD) residue generated from the Allen Steam Station plant.
7. At the time of construction, the projected life of the RAB landfill was approximately 12-years.
8. The power plant has been operational since May 2013 as a "peaking station".
9. The current active area of the landfill is Cell 2A, of Phase 1.
10. The retired ash basin (RAB) landfill has been constructed on top of a former structural fill landfill.

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11. There are three 'chimney drains' in Cell 2 of Phase 1 that collect and direct storm water that contacts the coal ash to the leachate collection system. (Photo #1)
12. Both the edge of waste and the edge of liner are identified with white PVC markers.
13. The side slopes of the landfill had well sloped and have an established vegetative cover. (Photos 1 &2).



1. Looking (S) down the perimeter road, at the eastern slopes the landfill. (Note the "down slope" drain pipe in the center of the photo.)



2. Down slope drain located eastern side of the landfill, near the SW corner. (Note the upper portions of the drain are now covered with soil for increased stabilization.)



3. Looking (N) at Cell 2, in Phase 1. (Note one of the three "chimney drain" the right center of the photo.)



4. Looking (N) across the top of Phase 1, Cell 2.

14. The perimeter stormwater ditches are free of excessive sediments and well maintained. (Photo #5)
15. The sediment basin on the south side of the landfill is well maintained and appears to be relatively free of sediments. (Photo #6)
16. The access roads are well maintained. (Photo #1)
17. Dust is very well controlled.
18. Daily management and operations of the landfill is carried out by CHARA, Inc.

CHARA, Inc.
12601 Plantside Dr.
Louisville, KY 40299
877-314-7724

19. No on-site or off-site erosion was observed.
20. Duke Energy monitors the landfill annually for the presence of methane and hydrogen sulfide gas.

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5. Looking (E) down the perimeter ditch on the (S) side of the landfill. (Note the drop inlet in the ditch, on the left.)



6. Looking (W) down the sediment basin located to the (S) of the landfill. (Landfill is in right.)

21. Landfill Staff Certifications:

Name	Certification	Expiration Date
Walter Fox (CHARA)	Landfill Manager	9/19/16
Chris Emory (CHARA)	Landfill Manager	7/23/16
Don Scruggs (DUKE)	Landfill Manager	3/16/14

22. Coal ash compaction (a.k.a. “Field Density”) records were reviewed. (An approved variance to the operations plan [DIN 20298], requires, in part, that “waste fill shall be compacted to a minimum 95 percent of its standard Proctor (ASTM D698) maximum dry density. Compacted moisture content shall be with 5 percent of the optimum moisture content.”)

On February 17, 2014 six “Field Density Tests” were performed by *E.S.P. Associates, P.A.* (ESP) on the ash, at the existing elevations in Cells 1 and 2 of Phase 1. All tests indicated densities equalling or exceeding the required 95 percent of its Standard Proctor maximum dry density with moisture content within 5% of the optimum moisture content.

In March 2014 ten “Field Density Tests” were performed by *E.S.P. Associates, P.A.* (ESP) on the ash, at the existing elevations in Cells 1 and 2 of Phase 1. All tests indicated densities equalling or exceeding the required 95 percent of its Standard Proctor maximum dry density with moisture content within 5% of the optimum moisture content.

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


 Bill Wagner
 Environmental Senior Specialist
Regional Representative

Phone: 828-296-4705

Sent on:		Email		Hand delivery		US Mail		Certified No. <input type="checkbox"/>
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ec: Jason Watkins, District Supervisor – Solid Waste Section
 Sarah Rice, Compliance Officer – Solid Waste Section