



Facility Permit No: 36-12  
Permit to Operate - Modification  
Duke Energy Allen Steam Station  
Retired Ash Basin (RAB) - Ash Landfill  
June 16, 2011  
DIN: 14135  
Page 1 of 7

North Carolina Department of Environment and Natural Resources  
Division of Waste Management

Beverly Eaves Perdue  
Governor

Dexter R. Matthews  
Director

Dee Freeman  
Secretary

STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES  
DIVISION OF WASTE MANAGEMENT  
SOLID WASTE SECTION

**INDUSTRIAL SOLID WASTE LANDFILL FACILITY**  
**Permit No. 36-12**

Duke Energy Carolinas, LLC  
is hereby issued a

**PERMIT TO OPERATE**  
ALLEN STEAM STATION, RETIRED ASH BASIN (RAB) – ASH LANDFILL  
PHASE 1 – CELLS 1 AND 2

Located within the Duke Energy Carolinas, LLC – Allen Steam Plant property boundaries at 253 Plant Allen Road (off of NC273) south of the City of Belmont, Gaston County, North Carolina, in accordance with Article 9, Chapter 130A, of the General Statutes of North Carolina and all rules promulgated thereunder and subject to the conditions set forth in this permit. The legal description of the site is identified on the deeds recorded for this property listed in Attachment No. 1 of this permit.

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Edward F. Mussler, III, P.E.,  
Permitting Branch Supervisor  
Solid Waste Section

## ATTACHMENT 1

### PART I: PERMITTING HISTORY

1. On September 2008 a new Permit to Construct was issued for Phase 1, consisting of Cells 1 and 2.
2. On December 2009 a new Permit to Operate was issued for Phase 1, Cell 1.
3. Permit modification for operation of Phase 1 - Cell 2 and Operations Plan changes, December 2010.
4. Permit modification for changes to the operations plan and the addition of "Chimney Drains to the LCS system, June 2011.

Permit Type	Date Issued	DIN
Original Permit to Construct – Phase 1 – Cells 1 and 2	September 2, 2008	5552
Original Permit to Operate – Phase 1 – Cell 1	December 9, 2009	7949
Permit to Operate, Modification – Phase 1 – Cell 2	December 7, 2010	12343
<b>Permit to Operate, Modification</b>	<b>June 16, 2011</b>	<b>14135</b>

### PART II: LIST OF DOCUMENTS FOR THE APPROVED PLAN

#### Industrial Solid Waste Landfill Unit

NO.	APPROVED DOCUMENT NAME	DIN
1.	<i>Proposed Test Fill, Retired Ash Basin Ash Landfill – Allen Steam Station.</i> Prepared by S&ME, Project No. 1356-06-825. Prepared for Duke Energy. September 14, 2007	<b>5638</b> was 3080
2.	<i>Duke Energy – Allen Steam Station, Retired Ash Basin CCP Landfill, Ash Structural Fill – Section .1700 Notification.</i> Prepared by Duke Energy. Prepared for Duke Energy. October 8, 2007.	<b>5640</b> was 3215
3.	<i>Notification of Site Suitability, Duke Power – Allen Steam Station, Retired Ash Basin (RAB) Ash Landfill, Gaston County.</i> Prepared by the Division of Waste Management. December 7, 2007.	<b>5642</b> was 3482
4.	<i>Site Suitability Study, Retired Ash Basin (RAB) – Landfill, Duke Energy – Allen Steam Station, Belmont, North Carolina, S&amp;ME Project No. 1356-06-852.</i> Prepared by S&ME. Prepared for Duke Energy. August 31, 2007.	<b>5595</b> was 3483
5.	<i>Engineering Plan, Retired Ash Basin (RAB) – Ash Landfill, Allen Steam Station, Belmont, North Carolina, S&amp;ME Project No. 1356-06-825.</i> Prepared by S&ME. Prepared for Duke Energy. March 21, 2008.	<b>5949</b> was 4251
6.	<i>Duke Energy – Allen Steam Station, Retired Ash Basin CP Landfill, Permit to Construct Application, Response to Comments.</i> Prepared by S&ME. Prepared for Duke Energy. June 13, 2008.	4869

7.	<i>Duke Energy – Allen Steam Station, Retired Ash Basin CP Landfill, Permit to Construct Application, Additional Information Request Response. Prepared by S&amp;ME. Prepared for Duke Energy. June 13, 2008.</i>	5499
8.	<i>Cell 1 Construction Certification Report Amendment, Submittal 1 of 2, Retired Ash Basin (RAB – Ash Landfill, Allen Steam Station, Belmont, North Carolina, S&amp;ME Project No. 1356-06-825 Ph. 9, S&amp;ME Engineering License No. F-0176. Prepared by S&amp;ME. Prepared for Duke Energy. May 19, 2009.</i>	7419
9.	<i>Cell 1 Construction Certification Report, Submittal 2 of 2, Retired Ash Basin (RAB – Ash Landfill, Allen Steam Station, Belmont, North Carolina, S&amp;ME Project No. 1356-06-825 Ph. 9, S&amp;ME Engineering License No. F-0176. Prepared by S&amp;ME. Prepared for Duke Energy. Original July 15, 2009 (DIN 7930) and Amended July 27, 2009.</i>	7947
10.	<i>Engineering Stability Analyses Summary, Retired Ash Basin (RAB) – Ash Landfill, Duke Energy – Allen Steam Station, Belmont, NC, S&amp;ME Project No. 1356-06-825. Prepared by S&amp;ME. Prepared for Duke Energy. February 23, 2009.</i>	6861
11.	<i>Engineering Stability Analyses Summary, Retired Ash Basin (RAB) – Ash Landfill, Duke Energy – Allen Steam Station, Belmont, NC, S&amp;ME Project No. 1356-06-825. Prepared by S&amp;ME. Prepared for Duke Energy. August 12, 2009.</i>	8124
12.	<i>Operations Plan, Retired Ash Basin (RAB) – Ash Landfill, Allen Steam Station, Belmont, North Carolina, S&amp;ME Project No. 1356-06-825. Prepared for Duke Energy. Prepared by S&amp;ME. March 11, 2008, revised November 20, 2009.</i>	8940
13.	<i>Duke Energy - Allen Steam Station, Retired Ash Basin (RAB) - Ash Landfill, Cell 2 Construction Certification Report, Retired Ash Basin (RAB – Ash Landfill, Belmont, North Carolina, S&amp;ME Project No. 1356-06-825 Ph. 9, S&amp;ME Engineering License No. F-0176. Prepared for Duke Energy. Prepared by S&amp;ME. September 9, 2010.</i>	11567
14.	<i>Operations Plan, Retired Ash Basin (RAB) – Ash Landfill, Allen Steam Station, Belmont, North Carolina, S&amp;ME Project No. 1356-06-825. Prepared for Duke Energy. Prepared by S&amp;ME. March 11, 2008, revised November 20, 2009, September 3, 2010, and December 8, 2010.</i>	12344
15.	<i>Cells 1 and 2 Financial Assurance Cost Estimates, Retired Ash Basin (RAB) Ash Landfill, Permit No. 36-12, Duke Energy Carolinas, LLC- Allen Steam Station, 235 Plant Allen Road, Belmont, Gaston County, North Carolina. Prepared for Duke Energy. Prepared by S&amp;ME. December 6, 2010.</i>	12362
16.	<i>Operations Plan Permit Modification, Retired Ash Basin (RAB) Ash Landfill, Duke Energy-Allen Steam Station, Belmont, North Carolina, S&amp;ME Project No. 1356-10-009A, Task 05, S&amp;ME Engineering License No. F-0176. Prepared for Duke Energy. Prepared by S&amp;ME. May 23, 2011.</i>	14014
17.	<i>Operations Plan Permit Modification – Chimney Drain Letter, Retired Ash Basin (RAB) Ash Landfill, Duke Energy-Allen Steam Station, Belmont, North Carolina, S&amp;ME Project No. 1356-10-009A, Task 05, S&amp;ME Engineering License No. F-0176. Prepared for Duke Energy. Prepared by S&amp;ME. June 10, 2011.</i>	14134

**PART III: PROPERTIES APPROVED FOR THE SOLID WASTE FACILITY**

<b>Gaston County, N.C. Register of Deeds</b>				
Book	Page	Grantor	Grantee	Acres
2681	0586	Combined Deed	Duke Energy Carolinas, LLC	481±
Total Site Acreage: 481±				

**PART IV: GENERAL PERMIT CONDITIONS**

1. This permit is issued by the North Carolina Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Section (Section). In accordance with North Carolina Solid Waste Management Rule 15A NCAC 13B .0201(d), a solid waste management facility permit shall have two parts: a Permit to Construct and a Permit to Operate. The Permit to Construct shall expire on September 2, 2013. The Permit to Construct must be implemented in accordance with Attachment 2 of this permit. The Permit to Operate must be implemented in accordance with Attachment 3 of this permit.
2. The persons to whom this permit is issued (“permittee”) are the owners and operators of the solid waste management facility.
3. (Intentionally blank)
4. (Intentionally blank)
5. By receiving waste at this facility the permittee shall be considered to have accepted the terms and conditions of this permit.
6. 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.
7. This permit is issued based on the documents submitted in support of the application for permitting the facility including those identified in Attachment 1, “List of Documents for Approved Plan,” and which constitute the approved plan for the facility. Where discrepancies exist, the most recent submittals and the Conditions of Permit shall govern.
8. This permit may be transferred only with the approval of the Section, through the issuance of a new or substantially amended permit in accordance with applicable statutes and rules. In accordance with NCGS 130A-295.2(g) the permittee must notify the Section thirty (30) days prior to any significant change in the identity or business structure of either the owner or the operator, including but not limited to a proposed transfer of ownership of the facility or a change in the parent company of the owner or operator of the facility.

9. The permittee is responsible for obtaining all permits and approvals necessary for the development of this project including approval from appropriate agencies for a General or Individual NPDES Stormwater Discharge Permit. Issuance of this permit does not remove the permittee's responsibilities for compliance with any other local, state or federal rule, regulation or statute.

*- End of Section -*

## **ATTACHMENT 2**

### **CONDITIONS OF PERMIT TO CONSTRUCT**

#### **PART I: GENERAL FACILITY CONDITIONS**

*Not Applicable*

#### **PART II: INDUSTRIAL SOLID WASTE LANDFILL UNIT SPECIFIC CONDITIONS**

*Not Applicable*

#### **PART III: MISCELLANEOUS SOLID WASTE MANAGEMENT SPECIFIC CONDITIONS**

*Not Applicable*

*- End of Section -*

## **ATTACHMENT 3**

### **CONDITIONS OF OPERATING PERMIT**

#### **PART I: GENERAL FACILITY CONDITIONS**

1. The Permit to Operate shall expire December 9, 2014. Pursuant to 15A NCAC 13B .0201(e), no later than June 9, 2014, the owner or operator must submit a request to the Section for permit review and must update pertinent facility plans including, but not limited to, the facility operation and waste screening plans.
2. All sedimentation and erosion control activities must be conducted in accordance with the Sedimentation Control Act N.C.G.S. 113A-50, et seq., and rules promulgated under 15A NCAC 4.
3. The edge of the waste footprint for all disposal units must be identified and maintained with permanent physical markers.

#### **Operational Requirements**

4. This facility is permitted to receive solid waste generated by Duke Energy Corporation, Inc. 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 Commission for Health Services.
5. The facility operator must complete an approved operator training course in compliance with G.S. 130A-309.25.
  - a. A responsible individual certified in landfill operations must be on-site during all operating hours of the facility to ensure compliance with operational requirements.

- b. All pertinent landfill-operating personnel must receive training and supervision necessary to properly operate the landfill units in accordance with G.S. 130A-309.25 and addressed by memorandum dated November 29, 2000.
6. The use of different alternative cover materials requires approval, prior to implementation, by the Solid Waste Section. Requests for alternative cover material approval must include a plan detailing the comprehensive use and a demonstration of the effectiveness of the alternative cover material. The plan must be developed according to Section guidelines. Plans which are approved by the Section will be incorporated into, and made a part of, the approved documents listed in Attachment 1.
7. (Intentionally blank)

#### Monitoring and Reporting Requirements

8. A readily accessible unobstructed path must be cleared and maintained so that four-wheel vehicles may access monitoring locations at all times.
9. A field log book which details all development, sampling, repair, and all other pertinent activities associated with each leachate sampling location must be kept as part of the permanent facility record.
10. Copies of this permit, the approved plans, and all records required to be maintained by the permittee must be maintained at the facility and made available to the Section upon request during normal business hours.
11. The owner or operator must maintain a record of the amount of solid waste received at the landfill unit, compiled on a monthly basis. Scales must be used to weigh the amount of waste received.
12. On or before August 1 annually, the Permittee must submit an annual facility report to the Solid Waste Section, on forms prescribed by the Section.
  - a. The reporting period shall be for the previous year beginning July 1 and ending June 30.
  - b. The annual facility report must list the amount of waste received and landfilled in tons and be compiled:
    - i) On a monthly basis.
    - ii) By specific waste type.
    - iii) By disposal location within the facility.
  - c. A measurement of volume utilized in the landfill cells must be performed during the second quarter of the calendar year. The date and volumes, in cubic yards, must be included in the report.
  - d. The amount of waste, in tons from scale records, disposed in landfill cells from December 9, 2009 through the date of the annual volume survey must be included in the report.
  - e. The completed rest be forwarded to the Regional Waste Management Specialist for the facility by the date due on the prescribed annual facility report form.
  - f. A copy of the completed report must be forwarded to each county manager for each county from which waste was received at the facility. Documentation that a

copy of the report has been forwarded to the county managers must be sent to the Regional Waste Management Specialist by the date due on the prescribed annual facility report form.

13. The following, at a minimum, must not be accepted for disposal at the facility: hazardous waste, yard trash, liquid wastes, regulated medical waste, sharps not properly packaged, PCB waste as defined in 40 CFR 761, and wastes banned from disposal in North Carolina by G.S. 130A-309.10(f).
14. Closure or partial closure of any landfill unit must be in accordance with the Closure Plans described in the approved plans. Final Closure Plans must be submitted to the Division at least 90 days prior to implementation.
15. Financial assurance as required by state rules and statutes must be continuously maintained for the duration of the facility in accordance with applicable rules and statutes. Closure and Post-Closure cost estimates and financial instruments must be updated annually.

**PART II: INDUSTRIAL SOLID WASTE LANDFILL UNIT SPECIFIC CONDITIONS**

16. This permit approves the continued operation of Phase 1 – Cell 1 and the commencement of operations in Phase 1 – Cell 2, of the Retired Ash Basin (RAB) – Ash Landfill, as well as the onsite environmental management and protection facilities as described in the approved plans.
17. Monitoring and Reporting shall be accomplished in accordance with the approved Operations Plan listed in Attachment 1, Part II: List of Documents for the Approved Plan, and the Response Action Plan contained therein in accordance with NCGS 130A-295.4(c).
18. The following table lists the estimated gross capacity, acreage and status details for the landfill units. Gross capacity is defined as the calculated volume from the elevation of initial waste placement to the top of the final cover.

Phase	Acres	Gross capacity (cubic yards)
Phase 1 (cells 1 & 2)	25	2,082,500 (constructed)
Phase 2 (cells 3 & 4)	22	3,958,200
Total	47	6,040,700

19. Operations Quality Assurance shall be accomplished in accordance with Appendix II of the approved Operations Plan listed in Attachment 1, Part II: List of Documents for the Approved Plan. The Department may consider modification of the testing frequency, pending written request from Duke Energy. The submission requesting modification shall be based on demonstrated performance, observations and test results during operations.

**PART III: MISCELLANEOUS SOLID WASTE MANAGEMENT SPECIFIC CONDITIONS**

*Not Applicable*

*-End of Conditions-*