



Facility Permit No: 97-04  
Roaring River MSW Landfill  
Wilkes County  
January 20, 2012  
Doc ID: 15685  
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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

**MUNICIPAL SOLID WASTE LANDFILL FACILITY**  
**Permit No. 97-04**

WILKES COUNTY  
is hereby issued a

**PERMIT TO OPERATE**  
ROARING RIVER MSW LANDFILL

**PERMIT TO CONSTRUCT**  
*NOT APPLICABLE*

Located at 9219 Elkin Highway, NC Highway 268, in Wilkes 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 October 7, 1993 a Permit to Operate was issued for Phase 1 of the MSW landfill unit.
2. On October 27, 1998 a modification was made to the Permit to Operate for a five-year extension of Phase 1 of the MSW landfill unit.
3. On April 20, 2000 an amendment was made to the Permit to Operate for the operation of Phase 2 of the MSW landfill unit.
4. On October 9, 2002 a modification was made to the Permit to Operate for a change in operating hours.
5. On June 30, 2006 an amendment was made to the Permit to Operate for the operation of Phase 3 of the MSW landfill unit.
6. On June 3, 2009 a modification was made to the Permit to Operate for the addition of tarp alternative daily cover and a Type I Composting unit.
7. On January 20, 2012 an amendment was made to the Permit for the operation of MSW landfill unit Phase 4, a vertical expansion.

	<b>Permit Type</b>	<b>Date Issued</b>	<b>DIN</b>
1.	Original Permit to Operate	October 7, 1993	
2.	Permit Modification	October 27, 1998	
3.	Permit Amendment	April 20, 2000	
4.	Permit Modification	October 9, 2002	
5.	Permit Amendment	June 30, 2006	
6.	Permit Modification	June 3, 2009	7369
7.	<b>Permit Amendment</b>	<b>January 20, 2012</b>	<b>15685</b>

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

<b>NO.</b>	<b>DOCUMENT DESCRIPTION</b>	<b>DOCUMENT ID NO.</b>
1.	<i>Application for Permit to Construct, Wilkes County Landfill Phase 3 Expansion Permit No. 97-04, Wilkes County, NC, Volumes 1 and 2. Prepared by: Joyce Engineering. Prepared for: Wilkes County. May 2004, revised March 24, 2005 and April 14, 2005.</i>	
2.	<i>Letter: Wilkes County MSW Landfill, Alternative Cover Material. Prepared by: Joyce Engineering. Prepared for: Wilkes County. October 3, 2008.</i>	6092

3.	<i>Update to the Operations Plan.</i> Prepared by: Joyce Engineering. Prepared for: Wilkes County. January 5, 2009.	6575
4.	<i>Operation Plan for the Roaring River Landfill Phase 3.</i> Prepared by: Joyce Engineering. Prepared for: Wilkes County. March 10, 2009.	7009
5.	<i>Alternative Cover Materials (Tarps) Demonstration Report.</i> Prepared by: Joyce Engineering. Prepared for: Wilkes County. March 10, 2009.	7010
6.	<i>Water Quality Monitoring Plan.</i> Prepared by: Joyce Engineering. Prepared for: Wilkes County. January 2011. Revised May 2011.	15121
7.	<i>Landfill Gas Monitoring Plan.</i> Prepared by: Joyce Engineering. Prepared for: Wilkes County. August 2011.	15161
8.	<i>Operations Plan.</i> Prepared by: Joyce Engineering. Prepared for: Wilkes County. January 2011. Revised October 2011.	15475
9.	<i>Closure &amp; Post-closure Plan.</i> Prepared by: Joyce Engineering. Prepared for: Wilkes County. January 2011. Revised October 2011.	15476
10.	<i>Facility Plan.</i> Prepared by: Joyce Engineering. Prepared for: Wilkes County. January 2011. Revised May 2011.	15477
11.	<i>Engineering Plan.</i> Prepared by: Joyce Engineering. Prepared for: Wilkes County. January 2011. Revised May 2011.	15478
12.	<i>Construction Quality Assurance Plan.</i> Prepared by: Joyce Engineering. Prepared for: Wilkes County. August 2011.	15516

PART III: PROPERTIES APPROVED FOR THE SOLID WASTE FACILITY

<b>Wilkes County, N.C. Register of Deeds</b>				
Book	Page	Grantee	Grantor	Parcel No.
683	601	Wilkes County		4910-21-9513
Total Site Acreage: ±140.4 acres				

Notes:

- Deed book references are from the Wilkes County GIS website (<http://www2.undersys.com/wilkesweb/wilkes.html>) accessed December 2011.

PART IV: GENERAL PERMIT CONDITIONS

- 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 Operate shall expire June 30, 2011.

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. When this property is sold, leased, conveyed, or transferred in any manner, the deed or other instrument of transfer shall contain in the description section in no smaller type than that used in the body of the deed or instrument, a statement that the property has been used as a sanitary landfill and a reference by book and page to the recordation of the permit.
5. By initiating construction or receiving waste at this facility the permittee shall be considered to have accepted the terms and conditions of this permit.
6. Construction and 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: MUNICIPAL SOLID WASTE LANDFILL UNIT SPECIFIC CONDITIONS**

*Not Applicable*

**PART III: CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL UNIT SPECIFIC CONDITIONS**

*Not Applicable*

**PART IV: LAND CLEARING AND INERT DEBRIS LANDFILL UNIT SPECIFIC CONDITIONS**

*Not Applicable*

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

*Not Applicable*

**ATTACHMENT 3**  
**CONDITIONS OF PERMIT TO OPERATE**

**PART I: GENERAL FACILITY CONDITIONS**

1. The Permit to Operate shall expire **June 30, 2016**. Pursuant to 15A NCAC 13B .0201(e), no later than December 30, 2015, 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 with permanent physical markers.
4. The permittee must not knowingly dispose of, or accept for transfer for subsequent disposal, municipal solid waste that is generated within the boundaries of a unit of local government that by ordinance:
  - a. Prohibits generators or collectors of municipal solid waste from disposing of that type or form of municipal solid waste.
  - b. Requires generators or collectors of municipal solid waste to recycle that type or form of municipal solid waste.
5. Copies of this permit, the approved plans and all records required to be maintained by the permittee must be maintained at the facility, unless otherwise approved by the Section, and made available to the Section upon request during normal business hours.
6. 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 pursuant to 15A NCAC 13B .1628.
7. Closure or partial closure of any landfill unit must be in accordance with the Closure Plans described in the approved plans and 15A NCAC 13B .1629. Final Closure Plans must be submitted to the Division at least 90 days prior to implementation.

**Operational Requirements**

8. This facility is permitted to receive solid waste generated within Wilkes County, consistent with the local government waste management plan and with local government approval and as defined in G.S. 130-290 (a)(35), except where prohibited by the N. C.

General Statutes Article 9 of Chapter 130A, and the rules adopted by the Commission for Health Services.

9. 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 at all times while open for public use 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.
10. The use of different alternative daily cover requires approval, prior to implementation, by the Solid Waste Section. Requests for alternative daily cover approval must include a plan detailing the comprehensive use and a demonstration of the effectiveness of the alternative daily cover. 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.
  - a. The use of a fabric tarp as an alternate daily cover is approved and subject to the terms and conditions of operation as set forth in the plan. Soil cover shall be applied at a minimum of one time per week in accordance with Rule .1626 (2). Soil shall be applied more frequently, if needed, to control disease vectors, fires, odors, blowing litter and scavenging.
11. The facility must maintain records for all solid waste materials accepted as alternative cover material and used as alternate daily cover. The records must include: the date of receipt, weight of material, general description of the material, identity of the generator and transporter, and county of origin. Such records must be made available to the Solid Waste Section upon request.

#### Monitoring and Reporting Requirements

12. Groundwater, surface water, and landfill gas monitoring locations must be established and monitored as identified in the approved plans.
13. A licensed geologist must be present to supervise the installation of groundwater monitoring wells. The exact locations, screened intervals, and nesting of the wells must be established after consultation with the SWS Hydrogeologist at the time of well installation.
14. Ground water monitoring wells and surface water sampling locations must be sampled for Appendix I constituents at least semi-annually according to the specifications outlined in

the approved water quality monitoring plan and the current policies and guidelines of the Section in effect at the time of sampling.

15. Reports of the analytical data for each monitoring event must be submitted to the Section within 120 days of the respective sampling event. Analytical data must be submitted in a manner prescribed by the Section. Records of all groundwater, surface water, and leachate analytical data must be kept as part of the permanent facility record.
16. The four independent samples which comprise the initial baseline sampling event must be collected from each groundwater monitoring well and the report must be submitted to the Section within six months after issuance of the Permit to Operate.
17. Untreated leachate must be sampled and analyzed at least semi-annually concurrently with the groundwater water and surface water sampling, one sample per event. The leachate must be analyzed for all Appendix I constituents, pH, specific conductance, BOD, COD, nitrates, sulfates, and phosphates. Test results must be submitted to the Section along with groundwater and surface water test results. In the event leachate is recirculated, additional leachate sampling may be required.
18. A readily accessible unobstructed path must be cleared and maintained so that four-wheel vehicles may access monitoring well locations at all times.
19. A field log book which details all development, sampling, repair, and all other pertinent activities associated with each monitoring well and all sampling activities associated with each surface water and leachate sampling location must be kept as part of the permanent facility record.
20. All well construction records and soil boring logs for new wells must be submitted to the Solid Waste Section Hydrogeologist for review within 30 days of completion.
21. 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.
22. 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 county, city or transfer station of origin.
    - iii) By specific waste type.

- iv) By disposal location within the facility.
  - v) By diversion to alternative management facilities.
- 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 October 7, 1993 through the date of the annual volume survey must be included in the report.
- e. The completed report must 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

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

23. This permit approves the continued operation of Phases 1, 2, 3 and 4 of the municipal solid waste landfill, as well as the onsite environmental management and protection facilities as described in the approved plans.
24. The following table lists the gross capacity, acreage and status details for the MSW landfill units listed in the approved Facility Plan. Gross capacity is defined as the calculated volume from the elevation of initial waste placement to the top of the final cover. These capacities are based on 3:1 side slopes for Phases 1 through 5 and 4:1 side slopes for Phase 6.

Unit	Acres	Gross capacity (cubic yards)	Status
Phase 1	11.7	895,734	Completed
Phase 2	7.0	639,052	Completed
Phase 3	6.7	664,167	Operational
Phase 4	0	<b>693,709</b>	Operational
Phase 5	5.6	798,379	Future
Phase 6	12.0	<b>970,911</b>	Future
Total	43.0	<b>4,661,952</b>	

Note: Bold figures denote change from previous estimate.

25. The facility is approved to accept approximately 57,000 tons per year, approximately 190 tons per day (304 days per year), with a maximum variance in accordance with GS 130A-294(b1)(1) as listed in Attachment 1, Part II.
26. 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).
27. The permittee must not knowingly dispose of any type or form of municipal solid waste that is generated within the boundaries of a unit of local government that by ordinance:
  - a. Prohibits generators or collectors of municipal solid waste from disposing of that type or form of municipal solid waste.
  - b. Requires generators or collectors of municipal solid waste to recycle that type or form of municipal solid waste.
28. Leachate recirculation is approved in Phase 1 in accordance with the previously approved Wilkes County Transition Plan. Any monitoring information gathered in accordance with the approved plan must be maintained by the owner/operator at the facility. The use of leachate recirculation as a leachate management tool requires approval by the Section prior to implementation. Requests for leachate recirculation approval must include a comprehensive management plan developed according to Section guidelines and which is consistent with the approved operation plan. Plans which are approved by the Section will be incorporated into, and made a part of, the approved documents listed in Attachment 1.
29. The facility is permitted to co-dispose of wastewater treatment sludge generated within the facility's approved service area, and subject to the terms and procedures of the approved plan.
30. The leachate collection system must be maintained in accordance with 15A NCAC 13B.1626(12)(a). The plan shall include provisions for periodic cleaning and visual inspection. Documentation of the inspections, and cleaning and monitoring must be included in the operating records of the facility and provided to the Department upon request.

### PART III: CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL UNIT SPECIFIC CONDITIONS

*Not Applicable*

#### PART IV: LAND CLEARING AND INERT DEBRIS LANDFILL UNIT SPECIFIC CONDITIONS

*Not Applicable*

#### PART V: MISCELLANEOUS SOLID WASTE MANAGEMENT SPECIFIC CONDITIONS

##### General Conditions

31. Wastes received and product stored shall be maintained in reasonably sized piles with adequate fire breaks and lanes in accordance with the approved operational plans and the pertinent rules.
32. Surface water shall be diverted from all operational and storage areas to prevent standing water in operational areas and under or around storage piles. Water that comes in contact with solid waste shall be contained on-site or properly treated prior to discharge.
33. These areas shall be operated and maintained with sufficient dust control measures to minimize airborne emissions and to prevent dust from becoming a nuisance or safety hazard.
34. These areas shall be operated and maintained in a manner so as to minimize odors, prevent the creation of a nuisance, potential health hazard, or a potential fire hazard.
35. Effective vector control measures shall be applied as necessary to control flies, rodents, insects, or vermin.
36. All miscellaneous solid waste management activities must be managed within the facility and within the areas identified in the approved plans. Management of solid waste in areas of the facility other than that referenced above, require written permission of the Solid Waste Section.

##### Operational Conditions – Treatment & Processing (Wood Grinding)

37. The facility is permitted to operate a treatment and processing facility as defined in 15A NCAC 13B, Rule .0101(49).
38. The facility is permitted to receive land clearing waste as defined in 15A NCAC 13B, Rule .0101(23).
39. The facility is permitted to receive wooden pallets constructed of unpainted and untreated natural wood.
40. The facility must manage the treatment and processing according to the Operation Plan included in Attachment 1, Part II: "List of Documents for the Approved Plan". This document is included in the approved plan. Any revisions to the approved plan shall be approved by the Section, prior to implementation.

Operational Conditions – Type 1 Composting Unit

41. The facility is permitted to operate a compost facility as defined in 15A NCAC 13B, Rule .0101(7).
42. The facility is only permitted to receive waste materials described in 15A NCAC 13B, Rule .1402(f)(1).
43. The facility must monitor and maintain records to demonstrate the requirements of 15A NCAC 13B, Rule .1406 are continually being met. In addition, the facility is required to maintain records on the following information:
  - a. The amount of waste received into the facility,
  - b. the amount of compost land applied as a soil amendment,
  - c. the area of land compost was applied to as a soil amendment, and
  - d. the amount and final termination of any remaining compost.
44. The facility must analyze, classify and distribute the compost material in accordance with 15A NCAC 13B, Rules .1407 and .1408.

Operational Conditions – Tires

45. The facility is permitted to receive tires and scrap tires as defined in North Carolina General Statute Article 9, Chapter 130A-309.53(6) & (7).
46. Scrap tire collection areas shall be operated in accordance with the requirements of 15A NCAC 13B, Rule .1107.
47. The facility must manage tires according to the Operation Plan included in Attachment 1, Part II, "List of Documents for the Approved Plan". This document is included in the approved plan. Any revisions to the approved plan shall be approved by the North Carolina Division of Waste Management (DWM), Solid Waste Section, prior to implementation.

- *End of Permit Conditions* -