



Facility Permit No.: 29-06  
Part 2 - Permit to Operate  
April 27 2007  
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**NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES**  
Dexter R. Matthews, Director  
Division of Waste Management  
Michael F. Easley, Governor  
William G. Ross Jr., Secretary

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

**MUNICIPAL SOLID WASTE MANAGEMENT FACILITY PERMIT**

**DAVIDSON COUNTY**  
is hereby issued a

**PERMIT TO OPERATE**

Municipal Solid Waste Landfill  
Partial Closure of Areas 1 and 3  
and  
Construction & Demolition Landfill  
Household Hazardous Waste Collection Facility  
Mobile Home Deconstruction Facility

located on Roy Lopp Road, North Carolina State Road 2014, Davidson County, North Carolina as described in the legal description contained in the application for this permit 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.

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

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**ATTACHMENT 3  
 DAVIDSON COUNTY INTEGRATED SOLID WASTE MANAGEMENT**

**Permitting History**

<b>Permit Type</b>	<b>Date Issued</b>
Permit to Construct Area 3	September 28, 1994
Permit to Operate Area 3	January 17, 1995
Permit Renewal Area 1	August 21, 1995
Permit to Operate Area 1	March 13, 1996
Permit to Construct Area 2	May 30, 2000
Permit to Operate HHW Collection Area	June 22, 2001
Permit to Operate C&D Landfill	November 20, 2001
Permit to Operate Mobile Home Recycling Area	May 15, 2002
Permit to Operate Alternative Daily Cover	May 15, 2002
Permit to Operate Area 2	June 24, 2003
Permit to Operate C&D Landfill Phase 2	April 10, 2006
Permit to Operate Partial Closure Areas 1 and 3	April 27, 2007

**LIST OF DOCUMENTS FOR THE APPROVED PLAN**

*(Note: Numbering is modified to be independent for each Part)*

**PART I: GENERAL FACILITY**

The listing for General Facility Documents numbered 1 through 25 is contained in previous permits

26. *Davidson County Landfill Partial Closure Construction Quality Assurance Certification Report*, dated November 2005 prepared and submitted by Joyce Engineering. (Document Id. No. RCO724)

**PART II: MUNICIPAL SOLID WASTE LANDFILL**

The listing for MSWLF Documents numbered 26 through 40 is contained in previous permits

**PART III: CONSTRUCTION AND DEMOLITION LANDFILL**

The listing for C&DLF Documents numbered 41 through 43 is contained in previous permits

44. *Permit to Construct Application, Davidson County C&D Landfill Phase 2, Lexington, North Carolina*, dated April 2005 with revisions dated July 1, 2005, and subsequent supporting hydrogeological information received on August 23, 2005, and August 30, 2005, prepared by G. N. Richardson & Associates on behalf of Davidson County. The application includes 11 plan sheets entitled Construction and Demolition Debris (C&D) Landfill Phase 2 Engineering Drawings bearing a certification date on each page of 4/29/05.

45. Construction Quality Assurance Report, Davidson County C&D Landfill – Phase 2, dated February 2006, prepared by G. N. Richardson & Associates.

**PART IV: LAND CLEARING AND INERT DEBRIS LANDFILL**

**PART V: YARD WASTE**

**PART VI: MISCELLANEOUS FACILITIES**

**Household Hazardous Waste Documents**

- 43 *Application for Permanent HHW Facility*. Submitted by: Davidson County. May 15, 2001. Revised June 22, 2001.

**Mobile Home Recycling Documents**

44. *Operations Manual, Davidson County C&D Landfill - Mobile Home Deconstruction*. Prepared by:  
G.N. Richardson & Associates, Raleigh, NC. May 2002.

- End of Section -

## **ATTACHMENT 4**

### Conditions of Permit to Operate

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

1. Pursuant to 15A NCAC 13B .0201(e), this permit shall be reviewed on May 30, 2010. Davidson County must submit to the Solid Waste Section for review, an amendment to the permit prepared in accordance with 15A NCAC 13B .1603(a)(2), or a permit modification prepared in accordance with 15A NCAC 13B .1603(a)(3), as applicable.
  - a. Modifications to the facility and engineering plans may be required in accordance with rules in effect at the time of the next 5-year review.
  - b. Unless otherwise specifically approved in writing by the Division, application for permit review must be submitted at least 120 days in advance of the review date.
2. In the event of conflicts between this Permit to Operate and previously issued conditions, the conditions of this Permit to Operate shall supersede previously issued conditions.
3. The solid waste management units within this facility must conform to all operating procedures described in the approved plans, 15A NCAC 13B, and the conditions specified herein.
4. Additional conditions and revision of the approved documents or changes during the operation of the landfill require approval by the North Carolina Solid Waste Section.
5. On or before August 1 of each year, the permittee must report to the Solid Waste Section the amount of waste received (in tons) at this facility and disposed in landfill units on forms prescribed by the Section.
  - a. The completed report must be forwarded to the Regional Waste Management Specialist for the facility. A copy of the completed report must be forwarded to the County Manager of each county from which waste was received.
  - b. The reporting period must be for the previous year beginning July 1 and ending on June.
  - c. The report must include the following information:
    - i. The amount of waste received and land filled in tons, compiled on a monthly basis and by specific waste type if diverted to a specific unit within the permitted facility.
    - ii. A physical survey of volume utilized in the MSW cells must be performed during the second quarter of the calendar year. The date and volume, in cubic yards, must be included in the report.
    - iii. The amount of waste, in tons, from scale records, disposed in the MSW cells since September 28, 1994 through the date of the annual volume survey.
6. Ground water quality at this facility is subject to the "Classifications and Water Quality Standards Applicable to the Groundwater of North Carolina," 15A NCAC 2L including, but not limited to, provisions for detection monitoring, assessment, and corrective action.

#### **PART II: MUNICIPAL LANDFILL UNIT SPECIFIC CONDITIONS**

##### **GENERAL CONDITIONS**

1. This permit approves the operation of Area 2 of the municipal solid waste landfill unit as well as the on-site environmental management and protection facilities as described in the approved plans.

2. This permit is for operational approval of a permitted capacity of approximately 812,000 cubic yards, consistent with the contours as shown in the approved drawings.

### **MONITORING AND REPORTING**

3. Ground water monitoring at this unit must be as prescribed by the appropriate requirements of 15A NCAC 13B .1630-.1637 and the approved monitoring plan.
4. A readily accessible unobstructed path must be cleared and maintained so that four-wheel drive vehicles may access monitoring locations at all times.
5. 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.
6. Records of all ground-water, surface water and leachate analytical data must be kept as part of the permanent facility record.
7. 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.
8. Reports of the analytical data for each water quality sampling event must be submitted to the Section within 60 days of the respective sampling event. Analytical data must be submitted in a manner prescribed by the Section.
9. The four independent samples which comprise the initial baseline sampling event must be collected from each ground water monitoring well and the report must be submitted to the Section within six months after issuance of the Permit to Operate.
10. Untreated leachate must be sampled and analyzed at least semi-annually concurrently with the ground and surface water sampling. The leachate must be analyzed for all Appendix I constituents, pH, specific conductance, BOD and COD, phosphate, nitrate, and sulfate. Test results must be submitted to the Section along with ground and surface water test results. In the event leachate is recirculated, additional leachate sampling may be required.

### **OPERATIONAL CONDITIONS**

11. The landfill unit must conform to all operating requirements described in the approved plans, 15A NCAC 13B .1626, and the conditions specified herein.
12. The use of alternative daily cover requires approval, prior to implementation, by the Solid Waste Section. Requests for alternative daily cover approval must include a comprehensive use and demonstration for the effectiveness plan developed according to Section guidelines and consistent with the approved plan. Plans which are approved by the Section will be incorporated into, and made a part of, the approved documents found in Attachment 3.
  - a. The use of a synthetic tarp as an alternate daily cover is approved in accordance with the approved document: letter from CDM dated February 13, 1995.
13. The use of leachate recirculation as a leachate management tool requires approval, by the Solid Waste 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 found in Attachment 3.

14. The MSWLF unit is permitted to co-dispose of wastewater treatment sludges generated within the facility's approved service area, subject to the terms and procedures of the approved plan.
15. Closure or partial closure of any MSWLF 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. Closure and Post-closure plans, including financial instruments must be updated annually pursuant to 15A NCAC 13B .1628.

### **POST-CLOSURE CARE**

16. The partial closure of Cells 1 and 3 is described in the certification document listed in Attachment 3, Part I, Document No. 26 of this permit, and further identified as Doc Id. No. RCO724.
17. Because the cells are only a partial closure of the site, the required 30-year period shall not commence until the certified closure date of all landfill cells located at the site.
18. Davidson County is responsible for all requirements of the Post Closure period for the partially closed cells including ground water monitoring; leachate, storm water and landfill gas management; and maintenance of the final cap system throughout the Post Closure period in compliance with Rule 1627 and the approved Closure and Post Closure Plan contained in the approved facility Operation Plan except as provided under Rule .1627(d)(2).
19. The permittee is responsible
  - a. Maintain the integrity and effectiveness of the approved cap system including making timely repairs to the cover as necessary to address settlement, subsidence, erosion, or other events, and to preventing stormwater run-on and run-off from eroding or otherwise damaging the cap system in compliance with Rule .1627(d)(1)(A).
  - b. Maintain and operate the leachate collection system in accordance with the requirements in Rule .1627(d)(1)(B).
  - c. Maintain and, at a minimum, perform semi-annual sampling and analysis of the approved ground water monitoring and surface water system in compliance with Rule .1627(d)(1)(C).
  - d. Maintain and operate the gas monitoring system in compliance with Rule .1627(d)(1)(D) to ensure that:
    - i. The concentration of methane gas generated by the facility does not exceed 25 percent of the lower explosive limit for methane in facility structures (excluding gas control or recovery system components); and
    - ii. The concentration of methane gas does not exceed the lower explosive limit for methane at the facility property boundary.
  - e. If methane gas levels exceeding these limits are detected, Davidson County must take all steps required in Rule .1626(4)(c).
  - f. Ensure that the MSWLF units do not violate any applicable requirements developed under a State Implementation Plan (SIP) approved or promulgated by the U.S. EPA Administrator pursuant to Section 110 of the Clean Air Act, as amended.

20. Davidson County must provide continuous coverage for Post Closure care in accordance with Rule .1628(c) until released from financial assurance requirements for Post Closure care by demonstrating compliance with Rule .1627(d)(3). In addition, Davidson County must:
  - a. Provide continuous coverage for corrective action in accordance with Rule .1628(d) as may be necessary.
  - b. Annually adjust the Post Closure cost estimate for inflation or other associated cost factors within 60 days before the anniversary date of the establishment of the financial instrument(s). For owners and operators using the local government financial test, the Post Closure cost estimate must be updated for inflation within 30 days after the close of the local government's fiscal year and before submission of updated information to the Division.
  - c. Increase the Post Closure care cost estimate and the amount of financial assurance provided under Rule .1628(c)(2), when changes in the Post Closure plan or MSWLF unit conditions increase the maximum costs of Post Closure care.
21. The Post Closure cost estimate and the amount of financial assurance may be reduced as provided under Rule .1628(c)(2) if the cost estimate exceeds the maximum costs of Post Closure care remaining over the Post Closure care period.
  - a. Prior to any reduction of the Post Closure cost estimate by the Waste Management, a written justification for the reduction must be submitted to the Division.
  - b. No reduction of the Post Closure cost estimate shall be allowed without Division approval.
  - c. The reduction justification and the Division approval must be placed in the MSWLF's operating record.
22. Continuing solid waste management activities within the facility must be conducted in accordance with all pertinent requirements and permit conditions and must not violate any Post Closure conditions.
  - a. Use of the facility must not disturb the integrity of the final cap system or the function of the monitoring systems unless specifically approved by the Division.
  - b. The Division may approve disturbance of the cap system, base liner system, or other component of the containment system including the removal of waste if Davidson County satisfactorily demonstrates that the disturbance will not cause or potentially threaten harm to human health or safety, or the environment.
23. Following completion of the Post Closure care period for the facility, Davidson County must notify the Division that a certification, signed by a registered professional engineer, certifying that Post Closure care has been completed in accordance with the Post Closure plan and has been placed in the operating record in compliance with Rule .1627(d)(3).

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

1. This permit approves an operational period for the Davidson County Construction and Demolition Debris Landfill in accordance with the 5-year operating period and is therefore subject to review as indicated in Part I, paragraph 1, of this facility permit as required under 15A NCAC 13B .0201(e).
2. The operation of Davidson County Construction and Demolition (C&D) Landfill unit must be in accordance with the drawings shown in the Approved Documents list.

3. The total design gross capacity for the Phase 2 facility is approximately 137,463 cubic yards (Table 1 Facility Report page 5, revised September 2005) and consistent with the final contours as shown on Sheet No. 6/Drawing S5 in the construction application. Gross capacity is the measured volume between the bottom of waste and the top of final cover.
4. The capacity is based the receipt of approximately 88,867 tons during the 5-year operating period. This is consistent with approximately 54 tons per day at 280 operating days per year.

### **GENERAL CONDITIONS**

5. The documents submitted in support of the application for permitting the facility are identified in Attachment 3, "List of Documents for Approved Plan" and constitute the approved plan for the construction, operation and closure of the facility. Where discrepancies exist, the most recent submittal and the Conditions of Permit shall govern. Some components of the approved plan are reiterated in the Conditions of Permit.
6. This permit is not transferable.
7. All sedimentation/erosion control activities must be conducted in accordance with the Sedimentation Control Act codified at 15 NCAC 4. Native vegetation must be established on the completed C&D landfill unit in accordance with 15A NCAC 13B .0505 (3)(b)(c).

### **OPERATIONS**

8. Operation of the C&D landfill must be in accordance with Section .0505 of the Solid Waste Management Rules, the requirements contained in this permit, and must conform to the operating procedures described in the approved plan. Should the approved plan and the rules be in conflict, the Solid Waste Management Rules shall take precedence unless specifically addressed by permit condition.
9. Landfill operations must be supervised by an individual certified under a management program approved by the Division. In addition:
  - a. A responsible individual certified in landfill operations must be on-site at all times during all operating hours of the facility at all times.
  - b. All facility employees involved in the operation and maintenance of the landfill must have completed annual training in the proper facility operation and maintenance.
10. The C&D landfill units are permitted to receive the following waste types:
  - a. Unless otherwise specifically approved by permit condition, only "construction" or "demolition" types of solid wastes as defined in NCGS 130A-290 (a)(4) are permitted for acceptance and disposal in the C&D landfill units.
  - b. "Construction or demolition debris" as defined in G.S. 130A-290 (4) means solid waste resulting solely from construction, remodeling, repair or demolition operations on pavement, buildings, or other structures, but does not include inert debris, land-clearing debris or yard debris.
  - c. "Inert debris" as defined in G.S. 130A-290 (14) means solid waste that consists solely of material that is virtually inert, such as brick, concrete, rock and clean soil.
  - d. "Land-clearing debris" as defined in G.S. 130A-290 (15) means solid waste that is generated solely from land-clearing activities such as stumps and tree trunks.
  - e. "Asphalt" in accordance with G.S. 130-294(m).

11. The C&D landfill units must not receive the following waste types:
  - a. "Yard trash" as defined in G.S. 130A-290 (45) must not be disposed in the landfill area. However, yard trash, along with land-clearing debris, may be accepted for processing in the Yard Waste Composting Area or disposal in a LCID landfill.
  - b. Municipal solid wastes, hazardous wastes, or liquid wastes are not permitted for acceptance or disposal in the C&D landfill units.
12. The permittee must actively employ a screening program for the C&D unit that detects and prevents the disposal of MSW, hazardous, liquid or non-permitted wastes. At a minimum, the program must include:
  - a. Random inspections of incoming loads or other comparable procedures.
  - b. Records of any inspections.
  - c. Training of personnel to recognize hazardous and liquid wastes.
  - d. Development of a contingency plan to properly manage any identified hazardous, liquid or MSW wastes.
  - e. Identification, removal, storage, and final disposition of waste not permitted for disposal in the C&D landfill units.

#### **COVER MATERIAL REQUIREMENTS**

13. Solid waste must be covered with a minimum of 6 inches of soil or an approved material of equivalent performance and thickness at least once per week or when the active area reaches 2 acre in size or more often when necessary to prevent the site from becoming a visual nuisance or to mitigate conditions associated with fire, windblown materials, vectors, or excessive water infiltration.
14. Areas that will not receive additional waste for 12 months or more, but where final termination of operations has not occurred, must be covered with a minimum of one foot of soil cover [15A NCAC 13B .0505(3)(b)] including weekly cover and stabilized with vegetative cover including the approved daily cover material.
15. After final termination of disposal operations at the C&D unit or major part thereof, or upon revocation of a permit, the fill areas must be covered with at least two feet of suitable compacted earth [15A NCAC 13B .0505(3)(c)] or other protective barrier as specified by the rules or the permit in effect at the time of closure.

#### **ACCESS AND SAFETY**

16. The C&D unit must be adequately secured by means of gates, chains, berms, fences, or other security measures approved by the DWM to prevent unauthorized entry.
17. The access road to the C&D unit must be of all-weather construction and maintained in good condition.
18. Signs must be posted at the entrance of landfill in accordance with the Access and Safety Requirements under Operation Condition .0505(8).
19. Signs must provide information on dumping procedures, the hours of operation, the permit number, and other pertinent information must be posted at the entrance to the landfill.
20. Signs must be posted stating that MSW, hazardous waste or liquid waste cannot be received in the C&D unit.

21. Traffic signs or markers must be provided as necessary to promote orderly traffic patterns to and from the discharge area and to maintain safe operating conditions.
22. Dust control measures must be implemented when necessary.
23. Barrels and drums must not be disposed unless they are empty and perforated sufficiently to ensure that no liquid or hazardous waste is contained therein.
24. Asbestos waste must be managed in accordance with 40 CFR 61.
25. Open burning of solid waste is prohibited. Fires must be reported to the Solid Waste Section by phone within 24 hours of an incident and written notification must be submitted within 14 working days addressing the events at the site and future actions to be taken in the future to avoid and or mitigate potential fire hazards.
26. The concentration of explosive gases generated by the C&D unit must not exceed:
  - a. 25% of the lower explosive limit for gases in site structures excluding gas control or recovery system components if necessary; and
  - b. 100% of the lower explosive limit for gases at the property boundary. Installation of permanent gas monitoring wells may be required in the future to demonstrate compliance.
27. The removal of solid waste from the facility is prohibited unless the owner/operator approves and the removal is not performed on the working face. If C&D recycling is to take place in the future; amendment of the operations plan must be submitted to the Solid Waste Section for review and approval prior to initiation of the activities.

#### **EROSION AND SEDIMENTATION CONTROL**

28. Adequate sedimentation and erosion control measures must be practiced to prevent silt from leaving the site of the C&D unit.
29. Adequate sedimentation and erosion control measures must be practiced to prevent excessive on-site erosion.
30. Provisions for a vegetative ground cover sufficient to restrain erosion must be accomplished within 30 working days or 120 calendar days upon completion of any phase of C&D landfill unit development or as addressed in the approved Sedimentation and Erosion Control permit.

#### **DRAINAGE CONTROL AND WATER PROTECTION REQUIREMENTS**

31. Surface water must be diverted from the operational area.
32. Surface water must not be impounded over or in waste.
33. A separation distance of at least four feet must be maintained between the C&D waste and the groundwater table as addressed in the site suitability application, hydrologic assessment section.
34. Solid waste (C&D) must not be disposed in standing water.
35. Leachate must be contained on site or properly treated prior to discharge. An NPDES permit may be required prior to discharge of leachate to surface waters and or for land disturbing activities greater than one acre.
36. Ground water quality for the C&D landfill unit is subject to the classification and remedial action provisions referenced in Rule .0503 (2)(d) of 15A NCAC 13B.

37. A closure and post-closure plan must be submitted for approval at least 90 days prior to closure or partial closure of any landfill unit. The plan must include all steps and measures necessary to close and maintain the C&D unit in accordance with all rules in effect at that time. At a minimum, the plan must address the following:
- Design of a final cover system as required by the solid waste management rules in effect at the time of closure;
  - Construction and maintenance/operation of the final cover system and erosion control structures;
  - Surface water, ground water, and explosive gas monitoring.

#### **MONITORING AND REPORTING REQUIREMENTS**

38. The permittee must maintain a record of all monitoring events and analytical data in accordance with Part II: Municipal Landfill Unit Specific Conditions Monitoring and Reporting requirements in this permit.
39. The permittee must submit an Annual C&D Solid Waste Report consistent with the requirements contained in Part I: General Facility Conditions paragraph No. 5.
40. All records required to be maintained by the permittee by regulation or permit must be maintained on-site and made available to the SWS upon request.

- End of Section -

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

None

#### **PART V: YARD WASTE UNIT SPECIFIC CONDITIONS**

None

#### **PART VI: MISCELLANEOUS UNIT SPECIFIC CONDITIONS**

##### **PERMANENT HOUSEHOLD HAZARDOUS WASTE COLLECTION FACILITY**

##### **OPERATIONAL CONDITIONS**

- This permit is for the construction and operation of a Permanent Household Hazardous Waste Collection Facility. Revisions of the approved plans must be submitted to the North Carolina Division of Waste Management (DWM), Solid Waste Section, for review and approval prior to initiation of the activity.
- This permanent household hazardous waste collection facility is permitted to receive household hazardous waste (HHW) from homeowners and conditionally exempt small quantity generators. Unacceptable HHW that must not be collected at this facility includes radioactive waste, explosives, and infectious waste.
- Document number 41 of Attachment 3, AApproved Documents≅, is included in the approved plan.
- This facility must conform to all operating procedures in the approved plan, 15A NCAC 13B .0400, and the current Section policies and guidelines for HHW Collection Facilities.
- Household Hazardous Waste Identification Number NCPH02901001 must be used to ship wastes off site for recycling, treatment, or disposal.

### **REPORTING REQUIREMENTS**

6. The permittee must maintain records for the amount of HHW received at the facility and the amounts shipped off site for recycling, treatment, and disposal. Records must be compiled on a monthly basis and maintained at the facility for inspection upon request by Solid Waste Management personnel.
7. On or before August 1 of each year, the permittee must report to the Solid Waste Section, the amount of HHW waste (in pounds) received at this facility and the amounts shipped off site for recycling, reuse, and / or disposal. The reporting period must be for the previous year, beginning July 1 and ending June 30.
8. A copy of this permit and the approved plan must be maintained at the facility. Copies of this permit must be forwarded to the local fire departments, local hospitals, and other appropriate emergency agencies.

### **MOBILE HOME RECYCLING**

9. Refer to Operations Manual for operating conditions.

*- End of Section -*