



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

April 10, 2006

Charles Brushwood, Director  
Davidson County Integrated Solid Waste  
220 Landfill Road  
Lexington, North Carolina 27292

Re: Permit to Operate C&D Landfill Phase 2  
Permit No. 29-06  
Davidson County Landfill Facility  
Davidson County, North Carolina  
Document ID No. RCO218

Dear Mr. Brushwood:

The above referenced Permit to Operate is issued to Davidson County as the owner and operator of the above referenced facility in accordance with NCGS 130A-294 and the N.C. Solid Waste Management Rules, 15A NCAC 13B .0201(b)(2). Issuance of the Permit to Operate is solely granted for the new area within the facility approved for disposal activities under the attached permit identified as C&D landfill Phase 2, and does not affect any other solid waste management activity at the facility except where noted below.

The Facility Permit is issued for a 5-year operating period with the next review set for May 30, 2010. Please note that should a permit action occur during the term of the Facility Permit that extends the landfill capacity, the review date Facility Permit may be extended for 5 years from the issuance date of that new permit. At the end of the 5-year operational period, Davidson County may apply for an expansion of the facility, but will be subject to all rules in effect at the time of the application.

During your review of the permit, please note the following changes in the permit format. First, the list of approved documents in Attachment 3 is abbreviated and refers to previous permits for a full listing of approved documents. Second, the language in Part III Construction and Demolition Debris Unit Specific Conditions has been modified from the previous C&D Permits to Operate.

Other than the changes noted above and general formatting, no changes are made to the other portions of the permit.

After you have reviewed the attached Permit to Operate, please call me at (919) 508-8498 should you have any questions or comments regarding the permit or wish to discuss the permit conditions. Also, Hugh Jernigan, Waste Management Specialist for your area, can be contacted at the DENR Winston-Salem Regional Office at (336) 771-4608 extension 385.

As you are aware, Tim Jewett will handle permit actions for your facility from this point forward. Tim may be reached at (336)771-5094 in the Winston-Salem Regional Office. I sincerely appreciate having had the opportunity to work with you and your staff, and hope to visit with you in the future.

Sincerely,



Geoffrey H. Little  
Environmental Engineer  
Solid Waste Section

c:	Paul Crissman, DWM	Hugh Jernigan, DWM	Pieter K. Scheer, PE, GNR
	Ed Mussler, DWM	Tim Jewett, DWM	Joan A. Smyth, PG, GNR
	Brent Rockett, DWM		



Facility Permit No.: 29-06  
Part 2 - Permit to Operate  
April 10, 2006  
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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  
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.

Edward F. Mussler III  
CN = Edward F. Mussler III, C =  
US, O = Division of Waste  
Management, OU = Solid Waste  
Section  
I have reviewed this document  
and I am approving this document  
2006.04.11 13:39:30 -04'00'

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

1646 Mail Service Center, Raleigh, North Carolina 27699-1646  
Phone 919-508-8400 \ FAX 919-733-4810 \ Internet <http://wastenotnc.org>

**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

**LIST OF DOCUMENTS FOR THE APPROVED PLAN**

**PART I: GENERAL FACILITY**

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

**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 shall 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 shall 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 shall 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 shall 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 shall be forwarded to the Regional Waste Management Specialist for the facility. A copy of the completed report shall be forwarded to the County Manager of each county from which waste was received.
  - b. The reporting period shall be for the previous year beginning July 1 and ending on June.
  - c. The report shall 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 shall be performed during the second quarter of the calendar year. The date and volume, in cubic yards, shall 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 shall be as prescribed by the appropriate requirements of 15A NCAC 13B .1630-.1637 and the approved monitoring plan.
4. A readily accessible unobstructed path shall 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 shall be kept as part of the permanent facility record.
6. Records of all ground-water, surface water and leachate analytical data shall 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 shall be submitted to the Section within 60 days of the respective sampling event. Analytical data shall be submitted in a manner prescribed by the Section.
9. The four independent samples which comprise the initial baseline sampling event shall be collected from each ground water monitoring well and the report shall be submitted to the Section within six months after issuance of the Permit to Operate.
10. Untreated leachate shall be sampled and analyzed at least semi-annually concurrently with the ground and surface water sampling. The leachate shall be analyzed for all Appendix I constituents, pH, specific conductance, BOD and COD, phosphate, nitrate, and sulfate. Test results shall 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 shall 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 shall be in accordance with the Closure Plans described in the approved plans and 15A NCAC 13B .1629. Final Closure Plans shall be submitted to the Division at least 90 days prior to implementation. Closure and Post-closure plans, including financial instruments shall be updated annually pursuant to 15A NCAC 13B .1628.

### **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 shall 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 shall be conducted in accordance with the Sedimentation Control Act codified at 15 NCAC 4. Native vegetation shall 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 shall be in accordance with Section .0505 of the Solid Waste Management Rules, the requirements contained in this permit, and shall 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 shall be supervised by an individual certified under a management program approved by the Division. In addition:
  - a. A responsible individual certified in landfill operations shall 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 shall 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 shall not receive the following waste types:
  - a. “Yard trash” as defined in G.S. 130A-290 (45) shall 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 shall 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 shall 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 shall 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, shall 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 shall 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 shall 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 shall be of all-weather construction and maintained in good condition.
18. Signs shall be posted at the entrance of landfill in accordance with the Access and Safety Requirements under Operation Condition .0505(8).
19. Signs shall provide information on dumping procedures, the hours of operation, the permit number, and other pertinent information shall be posted at the entrance to the landfill.
20. Signs shall be posted stating that MSW, hazardous waste or liquid waste cannot be received in the C&D unit.
21. Traffic signs or markers shall 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 shall be implemented when necessary.
23. Barrels and drums shall not be disposed unless they are empty and perforated sufficiently to ensure that no liquid or hazardous waste is contained therein.
24. Asbestos waste shall be managed in accordance with 40 CFR 61.
25. Open burning of solid waste is prohibited. Fires shall be reported to the Solid Waste Section by phone within 24 hours of an incident and written notification shall 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 shall 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 shall be submitted to the Solid Waste Section for review and approval.

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

28. Adequate sedimentation and erosion control measures shall be practiced to prevent silt from leaving the site of the C&D unit.
29. Adequate sedimentation and erosion control measures shall 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 shall be diverted from the operational area.
32. Surface water shall not be impounded over or in waste.
33. A separation distance of at least four feet shall 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) shall not be disposed in standing water.
35. Leachate shall 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 shall address the following:
  - a. Design of a final cover system as required by the solid waste management rules in effect at the time of closure;

- b. Construction and maintenance/operation of the final cover system and erosion control structures;
- c. Surface water, ground water, and explosive gas monitoring.

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

- 38. The permittee shall 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 shall 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 shall 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**

- 1. This permit is for the construction and operation of a Permanent Household Hazardous Waste Collection Facility. Revisions of the approved plans shall be approved by the North Carolina Division of Waste Management (DWM), Solid Waste Section.
- 2. 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 shall not be collected at this facility includes radioactive waste, explosives, and infectious waste.
- 3. Document number 41 of Attachment 3, **A**pproved Documents<sup>®</sup> is included in the approved plan.
- 4. This facility shall conform to all operating procedures in the approved plan, 15A NCAC 13B .0400, and the current Section policies and guidelines for HHW Collection Facilities.
- 5. Household Hazardous Waste Identification Number NCPH02901001 shall be used to ship wastes off site for recycling, treatment, or disposal.

##### **REPORTING REQUIREMENTS**

- 6. The permittee shall 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 shall 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 shall be for the previous year, beginning July 1 and ending June 30.
8. A copy of this permit and the approved plan shall be maintained at the facility. Copies of this permit shall 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 -