NCDENR

**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**

May 5, 2005

Mr. Edward L. Mann, Public Utilities Director
PO Box 1000
Manteo, North Carolina 27954

Re: Solid Waste **PERMIT TO OPERATE**: No. 28-03
Dare County Construction&Demolition Landfill
Modification #8: PTO for Cell 1 and 2 vertical expansion(approx 5').

Dear Mr. Mann:

The referenced interim PERMIT TO OPERATE is issued in accordance with N.C.G.S. 130A-294 and the N.C. Solid Waste Management Rules, 15A NCAC 13B, consistent with .0201(e).

This PERMIT TO OPERATE is for Cell 1 and Cell 2 vertical expansion, consistent with the information provided by CDM dated 18 March 2005 and as shown on drawing denoted as Sheet No. C-1, dated March 2005. This PERMIT TO OPERATE is issued to Dare County as the owner and operator of the facility.

The CONSTRUCTION AND OPERATION conditions describe permitted fill areas, acceptable waste types, landfill operation, and requirements which must be satisfied prior to operation of the facility as a Construction/Demolition landfill.

Specific requirements for groundwater monitoring and facility record keeping and reporting are described in the Monitoring and Reporting conditions.

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Again, please review the Conditions of Permit, thoroughly and contact me if you have any questions at (919) 508-8495 if you require further clarification. Mr. Chuck Boyette is the Section's Waste Management Specialist for this area and can be contacted at the DENR Washington Regional Office, Washington, NC at (252) 948-3913.

Respectfully,

Jim Barber
Permitting Supervisor
Solid Waste Section
Division of Waste Management

cc: John Crowder
Chuck Boyette
Ellen Lorscheider
Raleigh Central File: Permit 28-03

PERMIT NUMBER: 28-03
ORIGINAL DATE ISSUED(PTO): 11/15/95
DATE AMENDED #5(PTC/CELL 1&2): 06/24/02
DATE AMENDED #6(PTO/CELL 2/292'):04/15/03
DATE AMENDED #7(PTO/CELLS 1&2): 06/27/03
DATE AMENDED #8(PTO/CELLS 1&2): 05/05/05

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT
1646 MAIL SERVICE CENTER; RALEIGH, NC 27699-1646

# SOLID WASTE PERMIT

COUNTY OF DARE

is hereby issued a PERMIT TO OPERATE

Cells 1 and 2 (Vertical expansion), of the Construction/Demolition Landfill

located west of US Highway 264 approximately 2.4 miles south of the intersection of US Highway 64/264 in Dare 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 facility is located and described by the legal description of the site on the boundary survey for the Dare County Landfill prepared by William T. Robbins, a Registered Land Surveyor, NC #L-2677, September 3, 1987.

James C Coffey

James C. Coffey
Section Chief
Solid Waste Section
Division of Waste Management

Conditions of Permit
Dare County Landfill
May 5, 2005

**CONDITIONS OF PERMIT:**

GENERAL

1. This permit shall not be effective unless the certified copy is filed in the Register of Deeds Office, in the grantor index under the name of the owner of the land in the county or counties in which the land is located. After recordation, the certified copy shall be returned to the Solid Waste Section (SWS) and shall have indicated on it the page and book number, date of recordation, and the Register's seal.

   The original permit to construct was issued on 7 September 1994 and recorded in Book: 0959 Pages: 0214 - 0224.

2. When this property is sold, leased, conveyed or transferred, 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.

3. This permit will be subject to review every five years (27 June 2008) as per 15A NCAC 13B .0201(c), according to the initial issuance date of this permit to operate. Modifications to the facility may be required in accordance with rules in effect at the time of review.

4. The approved plan is described by Attachment 1, "List of Documents for the Approved Plan". Where discrepancies may 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.

5. This permit is not transferable. The service area for this facility is Dare County.

6. A copy of this permit and the approved plans shall be maintained at the facility.

7. The applicant is responsible for obtaining any and all permits and approvals necessary for the development of this project prior to the commencement of construction activities.

OPERATION

8. This Permit to Operate is for the Dare County Construction and Demolition (C&D) Landfill; Cells 1 and 2 (Vertical expansion), consistent with the drawing C-1 from CDM as part of the permit request dated 18 March 2005.

9. This solid waste management facility is permitted to receive the following waste types:

   a. Land-clearing debris as defined in G.S. 130A-290, specifically, solid waste which is generated solely from land-clearing activities, such as stumps, trees, etc.;
   b. Inert debris defined as solid waste which consists solely of material that is virtually inert, such as brick, concrete, rock and clean soil; and
   c. Asphalt in accordance with G.S. 130-294(m).
   d. Construction and demolition debris defined as solid waste resulting solely from construction, remodeling, repair or demolition operations on pavement, buildings, or other structures.
   e. Scrap Tires in accordance with G.S. 130A-53(6).

   Yard trash as defined in G.S. 130A-290, shall not be disposed in the landfill area.

10. All sedimentation/erosion control activities will be conducted in accordance with the Sedimentation Control Act codified as 15 NCAC 4. Native vegetation shall be established on the completed landfill.

11. The following requirements shall be met prior to and during operation of the Cell 1 and 2 of this facility:

   a. Site preparation shall be in accordance with the construction plan and the conditions specified herein.
   b. Site inspection shall be made by a representative of the Division of Solid Waste Management (DWM).
   c. Signs shall be posted at the facility in accordance with the Access and Safety Requirements under Operation Condition No. 5 listed below.
   d. New groundwater monitoring wells GW-9, 10, 11, and 12 (see Monitoring and Reporting Requirements) shall be installed in accordance with the approved groundwater monitoring plan. A baseline sampling for water quality shall be performed. Well construction records, boring logs and sample analysis results shall be submitted to the Section Hydrogeologist for review and approval prior to operation of the facility as a C&D landfill. Also, well abandonment records shall be submitted for monitoring wells GW-4 and 5.

12. Operation of the C&D landfill units shall conform to the operating procedures described in the approved plan, in accordance with Section .0505 of the Solid Waste Management Rules, and in accordance with the following requirements: Waste Acceptance and Disposal.
    a. The facility shall accept only those solid wastes which it is permitted to receive.
    b. No municipal solid waste, hazardous waste, or liquid waste shall be accepted for disposal.
    c. The permittee shall implement a program at the facility for detecting and preventing the disposal of municipal solid waste (MSW) and hazardous or liquid wastes. The program shall include, at a minimum:
        (i) Random inspections of incoming loads or other comparable procedures:
        (ii) Records of any inspections;
        (iii) Training of personnel to recognize hazardous and liquid wastes;
        (iv) Development of a contingency plan to properly manage any identified hazardous, liquid or MSW wastes; The plan must address identification, removal, storage, and final disposition of waste.

13. Cover Material Requirements
    a. Operational soil cover of at least six inches shall be placed at least once per week or when the active area reaches one-half acre in size or more often as necessitated by the nature of the waste so as to prevent the site from becoming a visual nuisance and to prevent fires, windblown materials, vectors or water infiltration.
    b. Areas which will not have additional waste placed on them 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.
    c. 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.

14. Access and Safety
    a. The facility shall be adequately secured by means of gates, chains, berms, fences, or other security measures approved by the DWM to prevent unauthorized entry.
    b. An attendant shall be on duty at the site at all times while it is open for public use to ensure compliance with operational requirements.
    c. The access road to the site shall be of all-weather construction and maintained in good condition.
    d. Dust control measures shall be implemented when necessary.

e. Signs providing information on dumping procedures, the hours of operation, the permit number, and other pertinent information shall be posted at the site entrance.
f. Signs shall be posted stating that no MSW, hazardous waste or liquid waste can be received.
g. Traffic signs or markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions.
h. 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.
i. Barrels and drums shall not be disposed of unless they are empty and perforated sufficiently to ensure that no liquid or hazardous waste is contained therein, except fiber drums containing asbestos.
j. Open burning of solid waste is prohibited.
k. The concentration of explosive gases generated at the facility shall not exceed:
    i. twenty-five percent of the limit for gases in site structures (excluding gas control or recovery system components; and
    ii. the lower explosive limit for gases at the facility boundary.
l. The construction of structures necessary to ensure the safety of operators and users of the landfill shall be implemented by the owner.

15. Erosion and Sedimentation Control
    a. Adequate sedimentation and erosion control measures shall be practiced to prevent silt from leaving the site.
    b. Adequate sedimentation and erosion control measures shall be practiced to prevent excessive on-site erosion.
    c. 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 development.

16. Drainage Control and Water Protection Requirements
    a. Surface water shall be diverted from the operational area.
    b. Surface water shall not be impounded over or in waste.
    c. A separation distance of at least four feet shall be maintained between waste and the ground-water table.
    d. Solid waste shall not be disposed of in water.
    e. 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.

17. Ground water quality at this facility is subject to the classification and remedial action provisions referenced in Rule .0503 (2)(d) of 15A NCAC 13B.

18. **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 facility 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 consistent with .0505 (3) and .0505 (6), unless otherwise specified by the permit or consistent with the 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

19. Ground-water monitoring wells and monitoring requirements for the C&D landfill units:

    a. Monitoring well design and construction shall conform to the specifications outlined in Attachment 2, "North Carolina Water Quality Monitoring Guidance Document for Solid Waste Facilities" and the North Carolina Well Construction Standards, 15A NCAC 2C .0108.
    b. A total of eight locations as illustrated in the approved plan shall be established to monitor the facility.
    c. A geologist shall be in the field to supervise well installation.
    d. For each monitoring well constructed, a well completion record shall be submitted to DWM within 30 days upon completion.
    e. Prior to the acceptance of any waste at the facility, a baseline sampling event shall be completed.
    f. Sampling equipment and procedures shall conform to specifications outlined in the above-referenced guidance document, (Attachment 2), or the current guidelines established by DWM at the time of sampling. In order to determine ground-water flow directions and rates, each monitoring well shall be surveyed, and hydraulic conductivity values and effective porosity values shall be established for the screened intervals for each monitoring well.
    g. The permittee shall sample the monitoring wells semi-annually or as directed by the SWS Hydrogeologist.
    h. A readily accessible unobstructed path shall be initially cleared and maintained so that four-wheel drive vehicles may access the monitoring wells at all times.

20. The permittee shall maintain a record of all monitoring events and analytical data. Reports of the analytical data for each water quality monitoring sampling event shall be submitted to DWM in a timely manner.

21. The permittee shall maintain a record of the amount of solid waste received at the facility, compiled on a monthly basis. Scales shall be used to weigh the amount of waste received.

22. On or before 01 August 2005, and each year thereafter, the permittee shall report the amount of waste received (in tons) at this facility and disposed of in the landfill to the Solid Waste Section and to all counties from which waste was accepted, on forms prescribed by the Section. This report shall include the following information:
    a. The reporting period shall be for the previous year, beginning 01 July and ending on 30 June;
    b. The amount of waste received and landfilled in tons, compiled on a monthly basis, according to Condition 3 described above; and
    c. Documentation that a copy of the report has been forwarded to all counties from which waste was accepted.

23. All records shall be maintained on-site and made available to the SWS upon request.

24. All pertinent landfill operating personnel will receive training and supervision necessary to properly operate this C&D landfill unit in accordance with G.S. 130A-309.25 and addressed by memorandum dated 29 November 2000.

## ATTACHMENT 1

List of Documents for the Approved Plan

1. Revised Construction Plan Application for Dare County Construction and Demolition Landfill submitted by Applied Water Technology on behalf of Dare County received in Solid Waste Section Office on July 1, 1994.
2. Hydrogeological Report submitted by Geohydro on behalf of Dare County received in Solid Waste Section Office on November 17, 1993.
3. Response to review comments submitted by Applied Water Technology on behalf of Dare County dated August 18, 1994.
4. Letter regarding lead impacts from shooting range on landfill groundwater monitoring system submitted by Applied Water Technology on behalf of Dare County dated August 23, 1994.
5. Letter dated 20 April 1998 requesting the approval of co-disposing C&D waste and chopped tires. Request approved on 28 April 1998.
6. Document dated 4 September 1998 revising the water quality monitoring plan to include surface water sampling.
7. Letter dated 11 September 1998 from the Solid Waste Section responding to the 4 September 1998 submittal.
8. Document dated 23 September 1998 revising the surface water monitoring plan.
9. Letter dated 25 September 1998 approving the surface water monitoring plan.
10. Letter dated 23 December 1998 requesting that subcell 2A(initial 700 feet running North to South) be approved for C&D waste disposal.
11. Letter dated 21 July 1999 from AWT addressing groundwater elevations in Cell 2.
12. Letter dated 10 March 2000 requesting that Dare County be given approval to operate in Cell 1 area based on field survey done by Dare County after Cell 1 was re-graded in accordance with the approved drawings.
13. Request to revise CELL 1 and Tire Processing/Monofill areas per letter and drawing dated 20 September 2001 from Omni Professional Environmental Associates, P.A.
14. Letter dated 14 May 2002 addressing the need for expansion of Cells 1 and 2.
15. Letter dated 24 May 2002 addressing disposal rates and capacities needed at the Dare County C&DLF.
16. Letter dated 8 May 2002 from Div. Of Land Resources/Land Quality Section; Letter of Approval with Modification addressing erosion control and expansion of the on-site borrow area.
17. Letter dated 11 June 2002 requesting the approval to abandon GW-4 & 5 and to install GW-9, 10, 11, and 12.
18. Site drawings dated 14 May 2002 prepared by AWT/VEETech, P.A. for the expansion of Cells 1 and 2.
19. Letter dated 19 December 2002 with certification documents that the initial 180' of Cell 2 has been constructed in accordance with the approved plans.

20. Site as-built drawing dated 27 March 2003 from Styons Surveying Services documenting the final elevations of Cell 2 expansion, remaining 292' of cell construction.
21. Letter dated 31 March 2003, from VEETech, P.C., with certification documents that the remaining 292' of Cell 2 has been constructed in accordance with the approved plans.
22. Letter dated 12 May 2003 from AWT and letter of certification dated 9 May 2003 from VEETech, P.C. along with certification survey dated 1 May 2003 for Cell 1.
23. Well construction records and boring logs for wells GW 9, 10, 11 and 12 dated 12 October 2002.
24. Permit request to vertically expand Cells 1 and 2 by approximately 5' dated 18 March 2005 consistent with drawing C-1, attached with permit request.