



Fort Bragg Construction and Demolition Landfill  
Facility Permit No: 26-08  
Permit to Operate Phase I  
Permit to Construction Phase II  
and Phase I Closure  
DIN 13715  
April 28, 2011  
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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

**MUNICIPAL SOLID WASTE FACILITY  
PERMIT NO. 26-08**

**The Department of the Army - Fort Bragg**  
is hereby issued a

**Permit to Operate**

A Construction and Demolition Landfill  
Phase I

**Permit to Construct**

A Construction and Demolition Landfill  
Phase II and Phase I Closure

located on Lamont Road, Fort Bragg Military Reservation, Cumberland 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 found in the approved application.

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

## ATTACHMENT 1

### Part A Permitting History

Permit Type	Date Issued
Permit to Construct	January 27, 1998
Permit to Operate Amendment No. 1	November 9, 1999
Permit to Operate Amendment No. 2	June 27, 2002
Permit to Construct Amendment No. 3	September 21, 2004
Permit to Operate Amendment No. 4	May 31, 2007
Permit to Construct Phase II [includes Phase I Closure]	April 28, 2011

### Part B List of Documents for the Approved Facility Plan

1. Site and Construction Plans/Application for Fort Bragg - Lamont Road Landfill, Construction and Demolition Landfill Phase I; plans dated 28 November 1997 and 18 January 1998.
2. Technical provisions dated 15 November 1997.
3. Construction and Demolition Debris Landfill operations plan dated 15 November 1997.
4. Erosion and Sedimentation Control Plan approval letter dated 9 December 1997.
5. Hydrologic and Geologic Study of proposed Lamont road C&D Landfill dated 7 July 1996.
6. Water Quality Monitoring Plan Lamont road C&D Landfill dated 27 August 1997.
7. Well construction records, boring logs and chain of custody of initial sampling event; received 20 January 1998.
8. Certification letter dated 26 October 1999 from George Whitley addressing construction excavation limits for C&D expansion.
9. Certification drawings from surveyor dated 13 September 1999 and location drawings indicating cell expansion dated 25 October 1999: PW-5892.
10. Certification letter dated 19 March 2002 from George Whitley addressing construction excavation limits for C&D expansion for Phase II.
11. Construction drawings for Phase I dated 16 July 2002 identified as PWBC-6146 sheets 1 of 6 thru 6 of 6.
12. Certified construction drawings for Phase I certified 11 January 2007 and identified as SPEC. No. FW-

00051-2 containing Sheets 1 through 3 and Sheet C-1 certified 12 January 2007.

13. *Construction and Demolition Landfill Phase II Construction Phase I Closure Construction Permit Application*. Submitted by: HDR Engineering, Inc., of the Carolinas, 3733 National Drive Suite 207, Raleigh, NC 27612-4845. Dated: May 2010 and Revised March 2011. [DIN 13222]
14. *Landfill Gas Monitoring Plan for The Lamont Road LCID (Closed) and C&D Landfills*. Submitted by: HDR Engineering, Inc., of the Carolinas, 3733 National Drive Suite 207, Raleigh, NC 27612-4845. Dated: February 2011. [DIN 13220]

- End of Section -

#### **PART IV: GENERAL PERMIT CONDITIONS**

1. This permit is issued by the North Carolina Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Section (Section). In accordance with North Carolina Solid Waste Management Rule 15A NCAC 13B .0201(d), a solid waste management facility permit shall have two parts: a Permit to Construct and a Permit to Operate.
  - a. The Permit to Construct new Phase II shall expire October 26, 2012. The Permit to Construct must be implemented in accordance with Attachment 2 of this permit.
  - b. The Permit to Operate existing Phase I shall expire July 13, 2012. 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 must contain in the deed 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 beginning 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 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 identified in Attachment 1, “List of Documents for Approved Plan,” which constitutes 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 sedimentation and erosion control, and a General or Individual National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit, if applicable. 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

1. Pursuant to the NC Solid Waste Management Rules (Rule) 15A NCAC 13B .0201(c) and (d)(1), this permit approves construction for Phase II of the landfill consisting of approximately 6.03 acres with a projected operating capacity of 530,100 cubic yards and the closure plan for Phase I as contained in document labeled DIN 13222.
2. The construction authorized by this Permit to Construct must commence within 18 months from the issuance date of this permit. If construction does not begin within 18 months from the issuance date of this permit, then the permit to construct shall expire. Construction includes, but is not limited to, issuance of construction contracts, mobilization of equipment on site and construction activities including installation of sedimentation and erosion control structures. The permittee may reapply for the Permit to Construct. The re-application will be subject to the statutes and rules in effect on that date and may be subject to additional fees.
3. Construction of all solid waste management units within this facility must be in accordance with the pertinent approved plans and only for those phases of development approved for construction as described in Attachment I, Part II, List of Documents for the Approved Plan.
4. The permittee must conduct a preconstruction meeting prior to initiating construction of any unit/cell and must notify the Section at least 10 days prior to the meeting.
5. Modifications or revisions of the approved documents or changes during construction of any landfill unit/cell require approval by the Section, and may constitute a permit modification and be subject to a permitting fee.
6. The following conditions must be met prior to operation of Phase II:
  - a. Construction Quality Assurance (CQA) documentation and a certification by the project engineer that the landfill was built in accordance with approved plans and the conditions of the permit must be submitted to the Section for review and approval.
  - b. The edge of the waste footprint must be identified with permanent physical markers, for both existing units and the new unit.
  - c. The Permittee must contact the appropriate regional environmental specialist and permitting engineer to determine whether the Section chooses to hold a pre-operative meeting with key landfill personnel and representatives of the Section.
  - d. Federally-owned facilities are exempt from financial assurance requirements.

- e. The Permittee must obtain a Permit to Operate for the phase from the Section in accordance with 15A NCAC 13B .0201(d).
7. No rock blasting is allowed in construction without written approval of a blasting plan by the Section.
8. Prior to construction of any additional landfill phases, a Permit to Construct application must be submitted for approval to the Section. The application must comply with applicable statutes and rules in effect on that date and will be subject to a permitting fee.
9. Pursuant to Rule 15A NCAC 13B .0542(i)(2), burning of land-clearing debris generated on-site, as a result of construction activities, requires approval by the Section, the NC Division of Air Quality and the local fire department prior to burning.

#### **Geologic, Water Quality, and Landfill Gas Monitoring Requirements**

10. Prior to construction of the phase or cell(s) within the phase, all piezometers, borings, and groundwater and landfill gas monitoring wells within the footprint must be properly abandoned by overdrilling first (exception of non-cased borings) and sealed with grout in accordance with 15A NCAC 2C .0113 (d)(2), entitled "Abandonment of Wells."
11. In areas where soil is to be undercut, abandoned piezometers, groundwater and landfill gas monitoring wells and borings must not be grouted to pregrade land surface, but to the proposed base grade surface to prevent having to cut excess grout and possibly damage the wells.
12. A Licensed Geologist or Professional Engineer must report any pertinent geological feature(s) exposed during phase or cell excavation. Prior to placing any landfill liner, the geologist must submit to the Section hydrogeologist a written report that includes an accurate description of the exposed geological feature(s) and effect of the geological feature(s) on the design, construction, and operation of the cell, phase, or unit.
13. A Licensed Geologist must supervise the installation of groundwater monitoring wells and landfill gas monitoring wells. Each groundwater monitoring well and landfill gas well must be surveyed for location and elevation. Each groundwater monitoring well and landfill gas monitoring well must have an identification plate permanently attached to the well, in accordance with 15A NCAC 2C .0108(o).
14. Any modification to the approved water quality monitoring, sampling, landfill gas, and analysis plan must be submitted to the Section Hydrogeologist for review.

15. Groundwater and landfill gas monitoring well construction and abandonment must meet the requirements of 15A NCAC 02C.
16. Within 30 days of completed construction of each new groundwater and landfill gas monitoring well, a well construction record, well schematic, boring log, field log and notes, and description of well development activities, certified by a Licensed Geologist, must be submitted to the Section. Form GW-1(b) must be used for both groundwater and landfill gas wells. The submittal must also include a scaled topographic map, showing the location and identification of new, existing, and abandoned wells and piezometers.
17. Within thirty (30) days of the abandonment of any groundwater monitoring well or landfill gas monitoring well, the well abandonment record and any additional information included in the abandonment record must be certified by a Licensed Geologist, and submitted to the Section. Form GW-30 must be used for both groundwater and landfill gas wells.
18. All forms, reports, maps, plans, and data submitted to the Section must include an electronic (pdf) copy.

#### **Erosion and Sedimentation Control Requirements**

19. 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. All required sedimentation and erosion control measures must be installed and operable to mitigate excessive on-site erosion and to prevent silt from leaving the area of the landfill unit during the service life of the facility.
20. Facility construction, operations or practices must not cause or result in a discharge of pollution, dredged material, and/or fill material into waters of the state in violation of the requirements under Sections 401 and 404 of the Clean Water Act, as amended.
21. Modifications to the approved sedimentation and erosion control activities require approval by the North Carolina Land Quality Section. The Section must be notified of any sedimentation and erosion control plan modifications.

*- End of Section -*

## ATTACHMENT 3 CONDITIONS OF OPERATING PERMIT

### PART I: OPERATING CONDITIONS

1. The Permit to Operate the existing Phase I disposal area expires July 13, 2012. Pursuant to 15A NCAC 13B .0201(g), no later than February 1, 2012, the permittee must submit to the Section a permit amendment application prepared in accordance with 15A NCAC 13B .0535 (b).
2. This permit approves the continued operation of Phase I of the landfill, as well as the onsite environmental management and protection facilities as described in the approved plans. Operation of future phases or cells requires written approval of the Section after documentation has been submitted that the area has been constructed in accordance with applicable statutes and rules.
3. The following table lists the dimensions and details for the landfill, both existing and planned. Total gross capacity is defined as the volume measured from the bottom of waste through the top of final cover.

Phase	Acres	Gross Capacity (cu yd)	Status
I*	15.70	278,100	PTO Issued
II	6.03	530,100	PTC Issued [this permit action]
III	6.11	492,100	Approved for development. Requires PTC and PTO applications
IV	13.71	581,500	
<b>Total</b>	<b>41.55</b>	<b>1,881,800</b>	

\* Remaining capacity.

4. The permittee must maintain permanent markers that accurately identify the edge of the approved waste disposal boundary.
5. The landfill is permitted to receive the following waste types:
  - a. "C&D solid waste" as defined in 15A NCAC 13B, Rule .0532(8) means solid waste generated solely from the construction, remodeling, repair, or demolition operations on pavement and buildings or structures. C&D waste does not include municipal and industrial wastes that may be generated by the on-going operations at buildings or structures.
  - b. "Inert debris" as defined in G.S. 130A-290 (a)(14) means solid waste that consists solely of material such as concrete, brick, concrete block, uncontaminated soil, rock, and gravel.

- c. "Land-clearing debris" as defined in G.S. 130A-290 (a)(15) means solid waste which is generated solely from land clearing activities, limited to stumps, trees, limbs, brush, grass, and other naturally occurring vegetative material.
  - d. "Asphalt" in accordance with G.S. 130-294(m).
6. Regulated asbestos-containing material must be managed in accordance with 40 CFR 61. Disposal of asbestos waste must be in accordance with 15 NCAC 13B .0542 (c).
  7. Those wastes listed in 15A NCAC 13B .0542 (e) must not be accepted for disposal including, but not limited to, hazardous waste, municipal solid waste, liquid waste, commercial and industrial wastes, and yard trash.
  8. Wastewater treatment sludge is not approved for disposal. Wastewater treatment sludge may be accepted, with the approval of the Section, for utilization as a soil conditioner and incorporated into or applied onto the vegetative growth layer. The wastewater treatment sludge must not be applied at greater than agronomic rates nor to a depth greater than six inches.
  9. The facility is approved to accept approximately 430 tons per day, approximately 256 days per year with a maximum variance in accordance with GS 130A-294(b1)(1).
  10. This facility is permitted to receive solid waste generated within the military reservations of Fort Bragg and Camp MacKall.
  11. The permittee must not knowingly dispose of C&D waste that is generated within the boundaries of a unit of local government that by ordinance:
    - a. Prohibits generators or collectors of C&D waste from disposing of that type or form of C&D waste.
    - b. Requires generators or collectors of C&D waste to recycle that type or form of C&D waste.
  12. 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 C&D landfill unit in accordance with G.S. 130A-309.25 and addressed by memorandum dated November 29, 2000.

13. The permittee must actively employ a training and screening program at the facility prepared in accordance with Section .0544(e) for detecting and preventing the disposal of excluded or unauthorized 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, liquid, and other excluded waste types.
  - d. Development of a contingency plan to properly manage any identified hazardous, liquid, MSW, or other excluded or unauthorized wastes. The plan must address identification, removal, storage, and final disposition of these wastes.
14. The use of alternative periodic cover requires approval, prior to implementation, by the Section. Requests for alternative periodic cover approval must include a plan detailing the comprehensive use and a demonstration of the effectiveness of the alternative cover, developed according to Section guidelines. Plans that are approved by the Section will be incorporated into, and made a part of, the approved documents listed in Attachment 1.
15. Federally-owned facilities are exempt from financial assurance requirements.
16. 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. All required sedimentation and erosion control measures must be installed and operable to mitigate excessive on-site erosion and to prevent silt from leaving the area of the landfill unit during the service life of the facility.
17. Facility construction, operations or practices must not cause or result in a discharge of pollution, dredged material, and/or fill material into waters of the state in violation of the requirements under Sections 401 and 404 of the Clean Water Act, as amended.
18. Modifications to the approved sedimentation and erosion control activities require approval by the North Carolina Land Quality Section. The Section must be notified of any sedimentation and erosion control plan modifications.
19. An updated 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:
  - a. Design of a final cover system in accordance with 15 NCAC 13B .0543(c), or 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; and
- c. Surface water, ground water, and explosive gas monitoring.

## **PART II: MONITORING AND REPORTING REQUIREMENTS**

- 20. Groundwater, surface water, and landfill gas monitoring locations must be established and monitored as identified in the approved plans. Any proposed modification to an approved plan must be submitted to the Section and approved prior to implementation.
- 21. The permittee must obtain approval from the Section for the modification of any groundwater or landfill gas monitoring well. Design, construction, abandonment, surveying, and well plate identification of groundwater and landfill gas monitoring wells must be implemented in accordance with the conditions in Attachment 2, Geologic, Water Quality, and Landfill Gas Monitoring Requirements.
- 22. Groundwater monitoring wells and surface water sampling locations must be sampled at least semi-annually in accordance with 15A NCAC 13B .0544, the approved water quality monitoring plan, and the current policies and guidelines of the Section in effect at the time of sampling. In accordance with 15A NCAC 13B .0544(d), landfill gas monitoring must be conducted quarterly, unless otherwise specified by the Section.
- 23. Monitoring reports of the analytical results for surface water and groundwater monitoring sampling events must be submitted to the Section within 120 days of the sample collection date. Analytical laboratory data must be submitted in electronic portable document format (pdf) and in a spreadsheet format in an Electronic Data Deliverable (EDD) Template. All monitoring reports must contain:
  - a. a potentiometric surface map for the current sampling event,
  - b. analytical laboratory reports and summary tables,
  - c. a completed Solid Waste Environment Monitoring Data Form, and
  - d. laboratory data submitted in accordance with the EDD Template.
- 24. A readily accessible unobstructed path must be maintained so that groundwater and landfill gas monitoring wells and surface water sampling locations are accessible using four-wheel drive vehicles.
- 25. Documentation of well completion, development details, repair, abandonment, and all other pertinent activities associated with each groundwater and landfill gas monitoring well must be maintained in the facility operating record. The permittee must maintain a record of all groundwater, surface water, and landfill gas monitoring events and analytical data in the operating record.

26. All forms, reports, maps, plans, and data submitted to the Section must include an electronic (pdf) copy.
27. All landfill gas monitoring events must be conducted by properly trained personnel and must include monitoring for all explosive gases, including hydrogen sulfide. Landfill gas monitoring must include interior monitoring of onsite buildings.
28. Landfill gas monitoring results must be recorded on forms provided by the Section and be maintained in the facility's operating record.

#### REPORTING AND RECORDKEEPING

29. Copies of this permit, the approved plans, and all records required to be maintained by the permittee must be maintained at the facility and made available to the Section upon request during normal business hours.
30. The owner or operator must maintain records of the following. Scales must be used to weigh the amount of waste received. The daily reports are to be summarized into a monthly report for use in the required annual reports.
  - a. The amount of all accepted solid waste materials as (i) C&D wastes, (ii) material used as alternate periodic cover, and (iii) recyclable material.
  - b. Daily records of waste received, and origins of the loads.
31. On or before August 1 annually, the Permittee must submit an annual facility report to the 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 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 1, 2003 through the date of the annual volume survey must be included in the report.
- e. The tons of C&D waste recycled, recovered or diverted from disposal including a description of how and where the material was ultimately managed, as applicable, must be included in the report.
- f. The completed report must be forwarded to the Regional Environmental Senior Specialist for the facility by the date due on the prescribed annual facility report form.
- g. A copy of the completed report must be forwarded to each county manager for each county from which waste was received the facility. Documentation that a copy of the report has been forwarded to the county managers must be sent to the Regional Environmental Senior Specialist by the date due on the prescribed annual facility report form.

**PART III: MISCELLANEOUS SOLID WASTE MANAGEMENT CONDITIONS, (SPECIFY)**

Not Applicable.

*- End of Permit Conditions -*