



Permit No.: 41-12
Permit to Operate
City of Greensboro – Phase III MSWLF
June 15, 2011
Document ID No. 13407
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North Carolina Department of Environment and Natural Resources

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Division of Waste Management
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STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION

**MUNICIPAL SOLID WASTE LANDFILL
Permit 41-12**

CITY OF GREENSBORO
(LANDOWNER AND OPERATOR)

is hereby issued a

PERMIT TO OPERATE

CITY OF GREENBORO – WHITE STREET LANDFILL
PHASE III, CELLS 1, 2, AND 3

Located at 2503 White Street, Greensboro, Guilford 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 permitted landfill facility boundary encompasses approximately 120 acres located upon four tracts recorded at Book 3525, Page 1800; Book 3416, Page 0764; Book 3999, Page 0610; and Book 4620, Page 1479 in the Guilford County Deed Registry.

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

ATTACHMENT 1

Part I: Permitting History

Permit Type	Date Issued	Document ID
Permit to Construct (PTC) – Cell 1	March 17, 1997	
Permit to Operate (PTO) – Cell 1	December 9, 1997	
PTO Amendment	May 15, 1998	
PTC Amendment – Alternate liner, additional property, and Cells 2 and 3	October 6, 2000	
PTO Amendment - Cells 1 and 2	June 14, 2001	
PTO Amendment – Cells 1, 2, and 3	April 14, 2005	
PTO Amendment – Cells 1, 2, and 3	June 15, 2011	13407

Part II: List of Documents for the Approved Plan

1. *The Expansion of the White Street Sanitary Landfill, Greensboro, North Carolina, Site Study*, prepared by HDR Engineering.
2. *The Phase III Expansion of the White Street Sanitary Landfill, Greensboro, North Carolina, Construction Permit Application*, dated November 1995, as revised, prepared by HDR Engineering, Inc.
3. Drawings entitled *Construction Permit Application Plans for Phase III Expansion, White Street Landfill*, as revised, prepared by HDR Engineering, Inc.
4. *The Phase III Expansion of the White Street Sanitary Landfill, Greensboro, North Carolina, Construction Permit Application*, dated November 1995, as revised, prepared by HDR Engineering, Inc.
5. Drawings entitled *Construction Permit Application Plans for Phase III Expansion, White Street Landfill*, as revised, prepared by HDR Engineering, Inc.
6. *Certification Report for the White Street Landfill, Phase III Cell 1 Expansion*, dated November 1977, as revised, prepared by HDR Engineering, Inc.
7. *Certification Report for the White Street Landfill, Phase III Cell 1 Expansion*, dated February 1998, as revised, prepared by HDR Engineering, Inc.
8. *Permit Modification for Phase III of the White Street Municipal Solid Waste Landfill*, dated February 2000, as revised, prepared by HDR Engineering, Inc.

9. *Certification Report, White Street Landfill, Phase III Cell 2 Expansion*, dated February 2001, prepared by HDR Engineering, Inc.
10. *Certification Report, White Street Landfill, Phase III Cell 3 Expansion*, dated December 2004 as revised through April 15, 2005, prepared by HDR Engineering, Inc.
11. Letter dated April 1, 2005 from the City of Greensboro, North Carolina Finance Director, Richard Lusk, demonstrating Financial Assurance for the Cell 3 Expansion of the MSW Phase III.
12. Letter dated April 1, 2005 from Greg Dingman, Solid Waste Director for the City of Greensboro including boring logs and Phase III detection monitoring results for the Phase III groundwater monitoring wells.
13. Letter dated April 7, 2005 from HDR Engineering, Inc. including original draft of the response to comments letter dated 24 March 2005, response letter from Landsaver Environmental dated 24 March 2005, response to additional comments from HDR dated 7 April 2005, response from Brady Surveying dated 6 April 2005 (two drawings), additional response from Landsaver Environmental dated 7 April 2005, and information regarding Cell 3 subgrade rock issue prepared by HDR (included in Appendix A of *Certification Report, White Street Landfill, Phase III Cell 3 Expansion*).
14. Letter dated April 13, 2005 from HDR Engineering, Inc. including final response to comments and results of field investigations done by Landsaver Environmental performed 12 April 2005 (included in Appendix A of *Certification Report, White Street Landfill, Phase III Cell 3 Expansion*).
15. *White Street Sanitary Landfill, Phase III, Permit 41-12, Permit Amendment*. Prepared by City of Greensboro. Submitted January 14, 2010. Revised by HDR Engineering, Inc. of the Carolinas, Charlotte, NC. February 28, 2011. Revised through March 31, 2011. DIN 13531.
16. Letter dated April 5, 2011 from Dale Wyrick, Director of Field Operations, City of Greensboro. Acknowledgement and approval of current operation as stated in the last revision of application for permit amendment. DIN 13406.

Part III: Location of Solid Waste Facility

The solid waste facility approved under this permit is located on portions of the properties described in the following deeds.

Guilford County, NC Register of Deeds				
Book	Page	Grantor	Grantee	Acres
3525	1800	First Union National Bank	City of Greensboro	102.17
3416	0764	Ophelia Gladys K. Jackson	City of Greensboro	14.69
3963	0850	James C. Sproull IV and wife Cynthia S. Sproull et al	City of Greensboro	58.20
4620	1479	Duke Energy Corporation	City of Greensboro	1.16
			Total Acres	176.22

The area permitted for municipal solid waste disposal area is approximately 52 acres as described in the documents for the approved plan.

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. The Permit to Construct is not applicable. The Permit to Operate shall expire **April 14, 2015**. 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 transferring in any manner, the deed or other instrument of transfer shall contain in the description section in no smaller type than that used in the body of the deed or instrument, a statement that the property has been used as a sanitary landfill and a reference by book and page to the recordation of the permit.
5. By receiving waste at this facility the permittee shall be considered to have accepted the terms and conditions of this permit.
6. Operation of this solid waste management facility shall be in accordance with the North Carolina Solid Waste Management Rules, 15A NCAC 13B; Article 9 of the Chapter 130A

of the North Carolina General Statutes (NCGS 130A-290, et seq.); the conditions contained in this permit; and the approved plan. Should the approved plan and the rules conflict, the Solid Waste Management Rules shall take precedence unless specifically addressed by permit condition

7. This permit is issued based on the documents submitted in support of the application for permitting the facility including those identified in Attachment 1, “List of Documents for Approved Plan,” and which constitute the approved plan for the facility. Where discrepancies exist, the most recent submittals and the Conditions of Permit shall govern.
8. This permit may be transferred only with the approval of the Section, through the issuance of a new or substantially amended permit in accordance with applicable statutes and rules. In accordance with NCGS 130A-295.2(g) the permittee shall notify the Section thirty (30) days prior to any significant change in the identity or business structure of either the owner or the operator, including but not limited to a proposed transfer of ownership of the facility or a change in the parent company of the owner or operator of the facility.
9. The permittee is responsible for obtaining all permits and approvals necessary for the development of this project including approval from appropriate agencies for a General or Individual National Pollutant Discharge Elimination System Stormwater Discharge Permit. Issuance of this permit does not remove the permittee’s responsibilities for compliance with any other local, state or federal rule, regulation, or statute.

- End of Section -

ATTACHMENT 2

Conditions of Permit to Construct

Part I: General Facility Conditions

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Part II: Municipal Solid Waste Landfill Unit Specific Conditions

(Intentionally blank)

Part III: Construction and Demolition Debris Landfill Specific Conditions

Refer to the City of Greensboro – Phase II C&D over MSWLF, Permit 41-03.

Part IV: Land Clearing and Inert Debris Landfill Specific Conditions

(Intentionally blank)

Part V: Miscellaneous Solid Waste Management Specific Conditions

(Intentionally blank)

ATTACHMENT 3

Conditions of Permit to Operate

Part I: General Facility Conditions

1. The Permit to Operate shall expire **April 14, 2015**. Pursuant to 15A NCAC 13B .0201(g), no later than **October 14, 2014**, the owner of operator must submit a request to the Section for permit review and must update pertinent facility plans in accordance with 15A NCAC 13B .1617(b).
2. Copies of this permit, the approved plans, and all records required to be maintained by the permittee must be maintained at the facility and may available to the Section upon request during normal business hours.
3. Financial assurance must be continuously maintained for the duration of the facility pursuant to NCGS 130A-295.2 and 15A NCAC 13B .1628. Closure and post-closure cost estimates used for the local government financial test must be updated for inflation within 30 days after the close of the local government's fiscal year and before submission to the Section. Financial assurance for potential assessment and corrective action must be established and maintained in accordance with 130A-295.2(h).
4. All sedimentation and erosion control activities must be conducted in accordance with the Sedimentation Control Act, NCGS 113A-50 et seq., and rules promulgated under 15A NCAC 4.

Part II: Municipal Solid Waste Landfill Unit Specific Conditions

5. This permit approves the continued operation of Phase III, Cells 1, 2, and 3 as well as on-site environmental management and protection facilities as described in the approved plans.
6. The total gross capacity of Phase III, Cells 1-3 is 5,352,000 cubic yards. Total gross capacity is defined as the volume measured from the bottom of waste through the top of final cover. The total operating capacity for waste, daily, and intermediate cover is 5,058,000 cubic yards. The estimated remaining operating capacity as of June 27, 2010, was 1,526,400 cubic yards. (Note: The original total gross capacity was 5,140,000 cubic yards. The total gross capacity increased to the current capacity in 2000 when 0.9 acres was added in the northwest corner to the landfill footprint and an alternate liner was used for the construction of Cells 2 and 3.)
7. The permittee must maintain permanent markers that accurately identify the edge of the approved waste disposal boundary.

8. The facility is approved to receive for disposal non-hazardous solid waste as defined in NCGS 130A-290 (a) (35), except where prohibited by Article 9 of Chapter 130A and the rules adopted by the Commission for Health Services. The following, at a minimum, must not be accepted for disposal at the facility: hazardous waste, yard trash, liquid wastes, regulated medical waste, sharps not properly packaged, PCB waste as defined in 40 CFR 761, and wastes banned from disposal in NCGS 130A-309.10(f).
9. The facility is permitted to receive municipal solid waste generated within the City of Greensboro and Guilford County, consistent with the local government waste management plan and with local government approval. The facility is approved to accept 100,000 or more tons per year
10. The permittee is permitted to co-dispose of wastewater treatment sludge generated with the facility's approved service area, subject to the terms and procedures of the approved plan.
11. The permittee must not knowingly dispose of any type or form of solid waste that is generated within the boundaries of a unit of local government that by ordinance:
 - a. prohibits generators or collectors of municipal solid waste from disposing of that type or form of municipal solid waste, or
 - b. requires generators or collectors of municipal solid waste to recycle that type or form of municipal solid waste.
12. The facility operator must complete an approved operator training course in compliance with NCGS 130A-309.25.
 - a. A responsible individual certified in landfill operations must be on-site during all times of operation to ensure compliance with operational requirements.
 - b. All pertinent landfill-operating personnel must receive training and supervision necessary for proper operation of the landfill units in accordance with NCGS 130A-309.25 and addressed by memorandum dated November 29, 2000.
13. The permittee must actively employ a screening program that detects and prevents the disposal of hazardous, liquid, and other unauthorized wastes. At a minimum, the program must include:
 - a. random inspections of incoming loads or other comparable procedures;
 - b. records of all inspections;
 - c. training of personnel to recognize hazardous, liquid, and other excluded waste types; and
 - d. development of a contingency plan to properly manage any identified hazardous, liquid, or other excluded or unauthorized wastes. The plan must address the identification, removal, storage, and final disposition of these wastes.

14. The use of alternative daily cover requires approval, prior to implementation, by the Section. Requests for use alternative daily cover material must include a plan detailing the storage, composition, and application of the material and a demonstration of the effectiveness of the alternative daily cover. The plan must be developed according to Section guidelines. Plans which are approved by the Section will be incorporated into the approved documents listed in Attachment 1.
 - a. The use of Posi-Shell as an alternative daily cover has been approved.
15. The facility must maintain records for all solid waste materials accepted as alternative cover material and used as alternate daily cover. The records must include: the date of receipt, weight of material, general description of the material, identity of the generator and transporter, and county of origin. Such records must be made available to the Section upon request.
16. The use of leachate recirculation as a leachate management tool has been approved for this facility. Leachate recirculation may take place only in landfill areas equipped with a base liner that meets the design requirements of 15 NCAC 13B .1624(b) (1) (A) (i).
17. The leachate collection system must be maintained in accordance with 15A NCAC 13B.1626 (12) (a), and the approved operation plan. Documentation of the leachate line inspections, cleaning, monitoring, and camera inspections must be included in the operating record of the facility and provided to the Department upon request.
18. An updated closure and post-closure plan must be submitted to the Section 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 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 .1627, 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.

Monitoring and Reporting Requirements

19. Groundwater and surface water must be conducted in compliance with 15A NCAC .1630 through .1637 and .0602, and the approved Waste Quality Monitoring. Any proposed modification to an approved plan must be submitted to the Section and approved prior to implementation.
20. A readily accessible unobstructed path must be maintained so that monitoring wells and surface water sampling locations are accessible using four-wheel drive vehicles.

21. Groundwater quality is subject to 15A NCAC 2L- Groundwater Classifications Standards and the Groundwater Protection Standards established under 15A NCAC 13B .1634(i). Surface water is subject to 15A NCAC 2B – Surface Water and Wetlands Standards.
22. 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.
23. Untreated leachate must be sampled and analyzed at least semi-annually concurrently with the groundwater water and surface water sampling. The leachate must be analyzed for all Appendix I constituents, pH, specific conductance, BOD, COD, nitrates, sulfates, and phosphates. Test results must be submitted to the Section along with groundwater and surface water test results. In the event leachate is recirculated, additional leachate sampling may be required.
24. 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 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 Environmental Monitoring Data Form, and
 - d. laboratory data submitted in accordance with the EDD template.
25. All forms, reports, maps, plans, and data submitted to the Section must include an electronic (pdf) copy.
26. Documentation of well completion, development details, repair, abandonment, and all other pertinent activities associated with each monitoring well and all sampling activities associated with each groundwater monitoring well must be maintained in the permanent facility operation record.
27. Within thirty (30) days of the abandonment of any monitoring well/probe, the well abandonment record (GW-30 form) and any additional information included in the abandonment record must be submitted to the Section. The well abandonment records must be submitted to the Section consistent with 15A NCAC 2C .0114(b) and be certified by a licensed geologist.
28. The permittee must maintain a record of all monitoring events and analytical data in the permanent facility record.

Landfill Gas Monitoring and Management Requirements

29. Landfill gas monitoring must be conducted at the facility including interior monitoring of on-site buildings in accordance with the approved plan, 15A NCAC 13B .1626 (4), and applicable air quality permits. The permittee must sample landfill gas quarterly unless otherwise required for corrective action or specified by the Section.
30. The permittee is responsible to employ properly trained personnel to conduct gas monitoring and to operate and maintain the constructed landfill gas collection and control system (LFGCCs) and landfill gas to energy (LFGTE) project.
31. Landfill gas monitoring reports must be added to the facility's operating record within seven days of the monitoring event, and must include a description of the monitoring method used, the sampling results of each well and on-site buildings in percent of the lower explosive limit (LEL), date of monitoring, weather conditions, calibration report, and signature of the sampling personnel.
32. The permittee must maintain records of all landfill gas monitoring events in the operating record in accordance with 15A NCAC 13B .1626 (10) (iii).
33. If landfill gas monitoring reveals detection of methane of at least 25 percent of the LEL in on-site buildings, or detections of LEL at the compliance boundary, the permittee must comply with the requirements of 15A NCAC 13B .1626 (4).
34. The permittee must maintain the valid permit(s) from the North Carolina Department of Environment and Natural Resources, Division of Air Quality and comply with any local, state or federal regulations including routinely reporting requirements to operate the existing LCGCCs and LFGTE.

Waste Reporting Requirements

35. The permittee must maintain records of the following. Scales must be used to weigh the amount of waste received. The daily records 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. municipal solid wastes,
 - ii. alternative cover material used as alternate daily cover, and
 - iii. recyclable material.
 - b. Daily records of water received and origins of the loads.
36. 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 receiving disposal facility; and
 - 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 December 9, 1997, through the date of the annual volume survey must be included in the report.
- e. The tons of 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 at 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: Construction and Demolition Debris Landfill Specific Conditions

Refer to the City of Greensboro – Phase II C&D over MSWLF, Permit 41-03.

Part IV: Land Clearing and Inert Debris Landfill Specific Conditions

(Intentionally blank)

Part V: Miscellaneous Solid Waste Management Specific Conditions

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- End of Permit Conditions -