



North Carolina Department of Environment and Natural Resources

Division of Waste Management

Beverly Eaves Perdue
Governor

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Director

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Secretary

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

CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL
Permit No. 34-12-CDLF -1995

THE City of Winston-Salem (Owner) and
City/County Utility Commission (Operator)
are hereby issued a

PERMIT TO CONSTRUCT
AND
PERMIT TO OPERATE

VERTICAL EXPANSION AND PHASE VI

Old Salisbury Road Landfill Construction and Demolition Landfill Facility

located on Old Salisbury Road in Forsyth 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.

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

ATTACHMENT 1

PART I: PERMITTING HISTORY

Issuance	Date
Permit to Operate Phase I	3 July 1996
Amendment 1 Permit to Construct Phase II	15 October 1999
Amendment 2 PTO Phase II	7 February 2000
Amendment 3 PTC Phase III	2 August 2000
Amendment 4 PTO Phase III	25 April 2001
Amendment 5 PTC and PTO Vertical Expansion over Phases I-III	17 April 2003
Amendment 6 PTC Phases IV, V, and VI	28 May 2004
Amendment 7 PTO for Phase IV	7 October 2004
Amendment 8 PTO for Phase V	February 8, 2008
Amendment 9 PTC and PTO Vertical Expansion over Phases IV-VI and Phase VI	November 20, 2009

PART II: LIST OF DOCUMENTS FOR THE APPROVED PLAN

1. Site Plan Application; submitted by HDR Engineering, Inc. April, 1995
2. Construction Plan Application; submitted by HDR Engineering, Inc. June, 1995
3. Legal Description of the Facility
4. Letter dated 17 June 1997 submitted to the Section by HDR Engineering, Inc. certifying the western-half of Phase 1A.
5. Letter dated 12 January 1998 submitted to the Section by HDR Engineering, Inc. providing Certification No.3 for Phase I.
6. Letter dated 1 April 1998 submitted to the Section by HDR Engineering, Inc. providing Certification No. 4 for the Phase 1 Area.
7. Letter dated 30 July 1998 submitted to the Section by HDR Engineering, Inc. providing Certification No. 5 for the Phase 1 Area.
8. Construction Plan Application Phase II & III; submitted by HDR Engineering, Inc. April 1999
9. Letter dated 11 May 1999 submitted to the Section by HDR Engineering, Inc. providing Certification No. 6 for Phase I and II Areas.
10. Letter Dated 8 October 1999 submitted to the Section by HDR Engineering, Inc. providing amendments to the Groundwater Monitoring Plan.
11. Letter dated 30 December 1999 submitted to the Section by HDR Engineering, Inc. providing

Certification No. 7 for Phase I and II Areas.

12. Letter dated 17 April 2000 submitted to the Section by HDR Engineering, Inc. providing revisions to Document #8 (Construction Plan Application, Phase II & III) for Phase III development.
13. Letter dated 1 February 2001 submitted to the Section by HDR Engineering, Inc. providing Certification No. 8 for all of Phase III.
14. Document titled, "Old Salisbury Road Construction and Demolition Landfill, Winston- Salem, North Carolina, Construction Permit Application Phases I, II, III - Vertical Expansion." Prepared for the City of Winston-Salem City/County Utilities Commission by HDR Engineering, Inc. and dated December 2002.
15. Document titled, "Old Salisbury Road Construction and Demolition Landfill, Winston- Salem, North Carolina, Construction Permit Application Phases IV, V, and VI." Prepared for the City of Winston-Salem City/County Utilities Commission by HDR Engineering, Inc. and dated October 2002 and revised through December 2003.
16. Letter dated 20 August 2004 submitted to the Section by HDR Engineering, Inc. providing base grade Certification No. 9 for Phase IV and portions of Phase V and VI. Includes a survey drawing titled "Forsyth County Landfill, Landfill Expansion Phase IV, V, & VI, Finish Grade As-built Certification" prepared by MSS Land Consultants.
17. Letter dated 27 July 2007 submitted to the Section by HDR Engineering, Inc. providing revisions to Document #10 for Phase V and a portion of Phase VI development. (Doc. Id. Nos. 3701 and 3702).
18. Letter dated 31 July 2009 submitted to the Section by HDR Engineering, Inc. providing base grade Certification No. 11 for Phase VI. Includes a signed and sealed survey drawing titled "As Built Topographic Survey, Old Salisbury Road Construction and Demolition Landfill, Phase VI", prepared by A. N. James Surveying and Mapping, Inc. (Doc. ID No. 8561).
19. *Old Salisbury Road Construction and Demolition Landfill, Winston- Salem, North Carolina, Permit Amendment.* Prepared for: City of Winston-Salem City/County Utilities Commission. Prepared by: HDR Engineering, Inc., Charlotte, NC. June 5, 2009 and revised through June 29, 2009 (Doc. ID No. 7790).

PART III: PROPERTIES APPROVED FOR THE SOLID WASTE FACILITY

Forsyth County, N.C. Register of Deeds

Property	Book	Page	Acreage	Grantor	Grantee
Original Permit (4/07/1994)	2077	4531	108.24	Ruby N. Tesh (widow)	North Carolina Municipal Leasing Corporation
Original Permit (4/07/1994)	1820	2071	2.45	Garris E. Edwards and wife, Judith B. Edwards	North Carolina Municipal Leasing Corporation
Total Site Acreage:			110.69		

PART IV: GENERAL 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 shall expire on February 20, 2011. The Permit to Construct must be implemented in accordance with Attachment 2 of this permit. The Permit to Operate shall expire on November 20, 2014. The Permit to Operate must be implemented in accordance with Attachment 3 of this permit.
2. The person(s) to whom this permit is issued (“permittee”) are the owner(s) and operator(s) of the solid waste management facility.
3. This condition is not applicable for this permit.
4. This condition is not applicable for this 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 permit application for 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 and 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 a General or Individual NPDES 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: FACILITY SPECIFIC CONDITIONS

1. Pursuant to the NC Solid Waste Management Rules 15A NCAC 13B .0201(c) and (d)(1), this permit approves the operation of Phase VI consisting of approximately 10 acres with a projected operating capacity of 415,033 cubic yards of airspace along with the construction of a vertical expansion over Phases IV-VI with a projected operating capacity of 1,092,796 cubic yards of airspace.
2. The initial, substantial, construction authorized by this Permit to Construct must commence within 18 months from the issuance date of this permit. If substantial construction does not begin within 18 months from the issuance date of this permit, then the permit to construct shall expire. Substantial 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 re-apply for the Permit to Construct prior to the expiration date. The re-application will be subject to the statutes and rules in effect on that date and may be subject to additional fees. Since the Permit Amendment is a vertical expansion over the existing permitted uncapped areas (slopes are being increased from 4:1 to 3:1, but the final top elevation is not increased), construction is not necessary and this condition is not applicable.

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. 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.
5. The following conditions must be met prior to operation of Phase VI.
 - a. The Permittee must obtain a Permit to Operate for each phase from the Section in accordance with 15A NCAC 13B .0201(d).
 - b. 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.
 - 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. The edge of the waste footprint must be identified with permanent physical markers.

- End of Section -

ATTACHMENT 3 CONDITIONS OF PERMIT TO OPERATE

PART I: OPERATING CONDITIONS

1. The Permit to Operate shall expire November 20, 2014. Pursuant to 15A NCAC 13B .0201(g), no later than May 20, 2014, the owner or operator must submit a request to the Section for permit review and must update pertinent facility plans including, but not limited to, the facility operation and waste screening plans.
2. This permit approves the operation of Phases IV-VI of the C&D Landfill and approves the operation of the Vertical Expansion, Attachment I, Part II, Document 19 of the Approved Plans, as well as the onsite environmental management and protection facilities as described in the approved plans. Prior to operation, the permittee must acquire and maintain all other permits, licenses and authorizations necessary to properly operate the facility.

3. The landfill has a total permitted disposal capacity of approximately 4,030,000 cubic yards of total gross capacity in approximately 56 acres. Total gross capacity is defined as the volume measured from the bottom of waste through the top of final cover.

C&D Unit	Gross Capacity (cubic yards)	Acres	Status
Phase I	376,000	12	Closed
Phase II	499,000	9	Closed
Phase III	440,000	10	Closed
Phase IV	517,485	11	Active
Phase V	225,642	4	Active
Phase VI	415,033	10	Active
Vertical Expansion, 2009	1,092,796	0	Active
Total Permitted for Facility	4,030,000	56	

4. The permitted annual waste disposal rate is approximately 105,000 tons per year. This rate is approximately 350 tons per day, 6 days per week. Maximum variance shall be in accordance with NCGS 130A-294(b1)(1).
5. This facility is permitted to receive solid waste generated within the following county: Forsyth County, including the municipalities contained within Forsyth County.
6. 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 waste" 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).
7. Those wastes listed in 15A NCAC 13B .0542 (e) must not be accepted for disposal including, but not limited to municipal solid waste, liquid wastes, industrial solid waste unless a demonstration has

been approved by the division that the waste meets the requirements of Rule .0503(2)(d)(ii)(A) and yard trash.

8. 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).
9. 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 or to a depth greater than six inches.
10. 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.
11. 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 landfill units in accordance with G.S. 130A-309.25.
12. The permittee must actively employ a screening program for the C&D unit that detects and prevents the disposal of MSW, hazardous, liquid or non-permitted wastes. At a minimum, the program must include:
 - a. Random inspections of incoming loads or other comparable procedures.
 - b. Records of all 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.
13. 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. The plan must be developed

according to Section guidelines. Plans which are approved by the Section will be incorporated into, and made a part of, the approved documents listed in Attachment 1.

14. The facility must maintain records for all solid waste materials accepted as alternative cover material and used as alternate periodic 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.
15. 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.

Monitoring and Reporting Requirements

16. Groundwater, surface water, and methane monitoring locations must be established and monitored as identified in the approved plans. Surface water monitoring consists of three sampling locations, unless otherwise specified by the Section.
17. A licensed geologist must be present to supervise the installation of groundwater monitoring wells. The exact locations, screened intervals, and nesting of the wells must be established after consultation with the Section Hydrogeologist at the time of well installation.
18. Ground water 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), methane monitoring must be conducted quarterly, unless otherwise specified by the Section.
19. Assessment monitoring for groundwater and/or surface water, as applicable, must be performed in accordance with the 15A NCAC 13B .0545, and the approved plans listed in Attachment 1, Part II, List of Documents for the Approved Plans.
20. Hydraulic conductivity and effective porosity values must be established for each screened interval at each monitoring well in order to develop groundwater flow characteristics.
21. Reports of the analytical data for each water quality monitoring sampling event must be submitted to the Section within 120 days of the respective sampling event, in accordance with 15A NCAC 13B .0544. The permittee must provide a plan sheet-sized, scaled topographical map, showing the location and identification of new, existing, and abandoned wells and piezometers after installation of groundwater monitoring wells. Analytical data must be submitted in a manner prescribed by the Section. The permittee must maintain a record of all monitoring events and analytical data.
22. The four independent samples which comprise the initial baseline sampling event must be collected from each groundwater monitoring well and the report must be submitted to the Section within six months after issuance of the Permit to Operate.

23. A readily accessible unobstructed path must be cleared and maintained so that four-wheel vehicles may access monitoring well locations at all times.
24. A field log book which details all development, sampling, repair, and all other pertinent activities associated with each monitoring well and all sampling activities associated with each surface water and leachate sampling location must be kept as part of the permanent facility record.
25. All well construction records and soil boring logs for new wells must be submitted to the Section Hydrogeologist for review within 30 days of completion.
26. 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.
27. All forms, reports, maps, plans, and data submitted to the Section must include an electronic copy.
28. Copies of this permit, the approved plans, and all records required to be maintained by the permittee must be maintained at the facility, unless otherwise approved by the Section, and made available to the Section upon request during normal business hours.
29. The owner or operator must maintain a record of the amount of solid waste received at the landfill, compiled on a monthly basis. Scales must be used to weigh the amount of waste received.
30. 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.
 - v. By diversion to alternative management facilities.
 - c. A measurement of volume utilized in the landfill cells must be performed during the first or 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 July 3, 1996 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 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 Specialist by the date due on the prescribed annual facility report form.
31. Financial assurance must be continuously maintained for the duration of the facility in accordance with Rule 15A NCAC 13B .0546 and 15A NCAC 13B .0547 (2). Closure and Post-Closure cost estimates and financial instruments must be updated annually pursuant to 15A NCAC 13B .0546. Financial assurance for closure and post-closure costs representing Phase I-VI, as listed in Document 19, Part II, Attachment 1, must be established with proof submitted to the Section no later than December 15, 2009.
32. A closure and post-closure plan must be submitted for approval at least 90 days prior to closure or partial closure of any landfill unit. The plan must include all steps and measures necessary to close and maintain the C&D unit in accordance with all rules in effect at that time. At a minimum, the plan must address the following:
- 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;
 - c. Surface water, ground water, and explosive gas monitoring.

PART II: MISCELLANEOUS SOLID WASTE MANAGEMENT CONDITIONS, (SPECIFY)
Not applicable

- End of Permit Conditions -