



North Carolina Department of Environment and Natural Resources

Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

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Secretary

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

SOLID WASTE MANAGEMENT LANDFILL FACILITY
Permit No. 95-02

WATAUGA COUNTY
is hereby issued a

PERMIT TO OPERATE
LAND CLEARING & INERT DEBRIS LANDFILL PHASE 1
TREATMENT & PROCESSING UNIT

PERMIT TO CONSTRUCT
LAND CLEARING & INERT DEBRIS LANDFILL PHASE 1 EXPANSION

Located at 336 Landfill Road, in Watauga 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 legal description of the site is identified on the deeds recorded for this property listed in Attachment No. 1 of this permit.

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

ATTACHMENT 1

PART I: PERMITTING HISTORY

1. On December 18, 2001 a modification was made to the Permit for the operation of a Treatment and Processing unit.
2. On April 20, 2006 an amendment was made to the Permit to Operate for a five-year renewal of the Treatment and Processing unit.
3. On June 15, 2011 a New Permit was issued for construction and operation of an LCID disposal unit and an amendment was made to the Permit to Operate for a five-year renewal of the Treatment and Processing unit.

Permit Type	Date Issued	DIN
Permit Modification	December 18, 2001	
Permit Amendment	April 20, 2006	
New Permit / Amendment	June 15, 2011	13409

PART II: LIST OF DOCUMENTS FOR THE APPROVED PLAN

NO.	DOCUMENT DESCRIPTION	DOCUMENT ID NO.
1.	<i>Treatment and Processing Facility Permit Amendment Application.</i> Prepared by: Draper Aden Associates. Prepared for: Watauga County. October 23, 2001.	
2.	<i>Permit Renewal for Treatment and Processing Facility, Mulching Operations, Watauga County Landfill.</i> Prepared by: Draper Aden Associates. Prepared for: Watauga County. February 16, 2006.	
3.	<i>Watauga County Landfill Gas to Energy Project.</i> Prepared by: Watauga County. Prepared for: Watauga County. April 13, 2010.	10372
4.	<i>Certification Report: LFG Collection & Control System Modifications.</i> Prepared by: Carlson Environmental Consultants. Prepared for: Watauga County. June 16, 2010.	10903
3.	<i>Watauga County Solid Waste Program Operation Manual.</i> Prepared by: Watauga County. Prepared for: Watauga County. Revised August 2010.	11369
4.	<i>Watauga County – Proposed LCID Landfill Facility.</i> Prepared by: Draper Aden Associates. Prepared for: Watauga County. February 8, 2011.	12899

PART III: PROPERTIES APPROVED FOR THE SOLID WASTE FACILITY

Watauga County, N.C. Register of Deeds				
Book	Page	Acreage	Grantee	Parcel ID No.
085	053	15.0±	Watauga County	2920392009000
252	739	21.1±	Watauga County	2920397780000
134	848	39.5±	Watauga County	2920482773000
Total Site Acreage: 75.6±				

Notes:

1. Deed book references are from the Watauga County GIS website (<http://www.wataugacounty.org/ias/arcgismaps/arcgismapadvanced.aspx>) accessed June 2011.

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 must be implemented in accordance with Attachment 2 of this permit. 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 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 initiating 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 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 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: GENERAL FACILITY CONDITIONS

1. The issuance date of the Permit to Construct is **June 15, 2011**. 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 reapply 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.
2. 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.
3. The permittee must conduct a preconstruction meeting at the facility prior to initiating construction of any unit/cell and must notify the Section at least 10 days prior to the meeting.
4. Modifications or revisions of the approved documents or changes during construction require approval by the Section, and may constitute a permit modification and be subject to a permitting fee.

Geologic, Groundwater, Surface water, Landfill Gas, and Monitoring Requirements

7. Samples from new ground water monitoring wells and surface water stations shall be sampled for constituents listed in the approved Monitoring Plan and submitted to the Section prior to receiving the Permit to Operate.
8. Prior to construction of the phase or cell(s) within the phase, all piezometers, borings, probes, landfill gas monitoring wells, and groundwater monitoring wells within the footprint must be properly abandoned in accordance with 15A NCAC 2C.0113(b), entitled "Abandonment of Wells."
9. In areas where soil is to be undercut, abandoned piezometers, 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.
10. A Licensed Geologist 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), subsurface soil condition, and effect of the geological feature(s) on the design, construction, and operation of the cell, phase, or unit.

11. A Licensed Geologist must supervise installation of groundwater monitoring wells, landfill gas monitoring wells and probes, and surface water sampling stations.
12. Any modification to the approved water quality and landfill gas monitoring, sampling, and analysis plans must be submitted to the Section Hydrogeologist for review.
13. Within 30 days of completed construction of any new groundwater and/or landfill gas monitoring well, a well construction record (GW-1 form), typical well schematic, boring log, field log and notes, and description of well development activities must be submitted to the Section.
14. The permittee must provide a legible plan sheet-sized, scaled topographical map with a legend, showing the location and identification of all new, existing, and abandoned wells, probes, and piezometers after installation of groundwater and landfill gas monitoring wells.
15. Within thirty (30) days of the completed permanent abandonment of a groundwater or landfill gas monitoring well, 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 Solid Waste Section in accordance with 15A NCAC 2C.0114(b) and be certified by a Licensed Geologist.

Erosion and Sedimentation Control Requirements

16. 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. All earth disturbing activities must be conducted in accordance with the Sedimentation Pollution Control Act of 1973 (15 NCAC 4) and consistent with any other local, state or federal requirements.
18. 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.
19. 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.

PART II: MUNICIPAL SOLID WASTE LANDFILL UNIT SPECIFIC CONDITIONS

Not Applicable

PART III: CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL UNIT SPECIFIC CONDITIONS

Not Applicable

PART IV: LAND CLEARING AND INERT DEBRIS LANDFILL UNIT SPECIFIC CONDITIONS

20. Pursuant to the NC Solid Waste Management Rules (Rule) 15A NCAC 13B.0201(c) and (d)(1), this permit approves construction for the expansion of Phase 1 consisting of approximately 0.28 acres increasing the disposal unit to 2.23 acres with a calculated gross capacity of approximately 59,030 cubic yards.
21. Pursuant to the NC Solid Waste Management Rule (Rule) 15A NCAC 13B.542(i)(2) burning of land-clearing debris generated on site as a result of construction activities requires approval by the Section prior to initiating the burn. In addition, the Facility must ensure the activity is in compliance with all air pollution and open burning laws, regulations, and ordinances.
22. The following conditions must be met prior to operation of the expansion of Phase 1:
 - a. The Permittee must obtain a Permit to Operate for the expansion Phase 1 from the Section in accordance with 15A NCAC 13B.0201(d).
 - b. Construction Quality Assurance (CQA) documentation as well as 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.

PART V: MISCELLANEOUS SOLID WASTE MANAGEMENT SPECIFIC CONDITIONS

Not Applicable

ATTACHMENT 3
CONDITIONS OF PERMIT TO OPERATE

PART I: GENERAL FACILITY CONDITIONS

1. The Permit to Operate shall expire **June 15, 2016**. Pursuant to 15A NCAC 13B .0201(e), no later than **January 15, 2016**, 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. 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.
3. The edge of the waste footprint for all disposal units must be identified with permanent physical markers.
4. The permittee must not knowingly dispose of, or accept for transfer for subsequent disposal, municipal 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.
 - b. Requires generators or collectors of municipal solid waste to recycle that type or form of municipal solid waste.
5. 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.
6. Financial assurance as required by state rules and statutes must be continuously maintained for the duration of the facility in accordance with applicable rules and statutes. Closure, post-closure cost estimates and financial instruments must be updated for inflation annually within 60 days prior to the anniversary date of the establishment of the financial instrument(s).
7. Closure or partial closure of any unit must be in accordance with the Closure Plans described in the approved plans. Revised Closure Plans must be submitted to the Division at least 90 days prior to implementation.

Operational Requirements

8. This facility is permitted to receive solid waste generated within Ashe, Avery, Caldwell, Watauga and Wilkes Counties, consistent with the local government waste management plan and with local government approval and as defined in G.S. 130-290 (a)(35), except where prohibited by the N. C. General Statutes Article 9 of Chapter 130A, and the rules adopted by the Commission for Health Services.

9. 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 and addressed by memorandum dated November 29, 2000.
10. The use of different alternative daily cover requires approval, prior to implementation, by the Solid Waste Section. Requests for alternative daily cover approval must include a plan detailing the comprehensive use 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, and made a part of, the approved documents listed in Attachment 1.
11. 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 Solid Waste Section upon request.

Monitoring and Reporting Requirements

12. Groundwater, surface water, and landfill gas monitoring locations must be established and monitored as identified in the approved plans.
13. 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 SWS Hydrogeologist at the time of well installation.
14. 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.
15. Reports of the analytical data for each monitoring event must be submitted to the Section within 120 days of the respective sampling event. Analytical data must be submitted in a manner prescribed by the Section. Records of all groundwater, surface water, leachate and landfill gas analytical data must be kept as part of the permanent facility record.
16. 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.
17. Untreated leachate must be sampled and analyzed at least semi-annually concurrently with the groundwater water and surface water sampling, one sample per event. 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.

18. A readily accessible unobstructed path must be cleared and maintained so that four-wheel vehicles may access monitoring well locations at all times.
19. 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.
20. All well construction records and soil boring logs for new wells must be submitted to the Solid Waste Section Hydrogeologist for review within 30 days of completion.
21. The owner or operator must maintain a record of the amount of solid waste received at the landfill unit, compiled on a monthly basis. Scales must be used to weigh the amount of waste received.
22. On or before August 1 annually, the Permittee must submit an annual facility report to the Solid Waste 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 and landfilled 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 8, 1993 through the date of the annual volume survey must be included in the report.
 - e. The completed report must be forwarded to the Regional Waste Management Specialist for the facility by the date due on the prescribed annual facility report form.
 - f. 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 Waste Management Specialist by the date due on the prescribed annual facility report form.

PART II: MUNICIPAL SOLID WASTE LANDFILL UNIT SPECIFIC CONDITIONS

23. The MSW landfill unit stopped receiving waste in April 1994.
24. Watauga County must maintain the integrity and effectiveness of the cap system, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and prevent surface water from impounding over waste and run-on and run-off from eroding or otherwise damaging the cap system.
25. Post-closure use of the property is subject to review and approval by the Division and must not disturb the integrity of the cap system, or the function of the monitoring systems. The Division may approve any other disturbance if the owner or operator demonstrates that disturbance of the cap system, including any removal of waste, will not increase the potential threat to human health or the environment.
26. The permittee must continue to conduct groundwater, surface water sampling and landfill gas monitoring in accordance with the approved plans.
27. The permittee must maintain a record of all monitoring events and analytical data. Reports of the sampling events and analytical data must be submitted to the Section in a timely manner.
28. Any proposed expansion to the closed MSW landfill unit will be considered a new landfill for purposes of Solid Waste Management permitting.

PART III: CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL UNIT SPECIFIC CONDITIONS

Not Applicable

PART IV: LAND CLEARING AND INERT DEBRIS LANDFILL UNIT SPECIFIC CONDITIONS

29. This permit approves the continued operation of Phase 1 of the land clearing and inert debris landfill, as well as the onsite environmental management and protection facilities as described in the approved plans.
30. The following table lists the dimensions and details for the LCID landfill unit. The following waste volumes include waste, daily cover, and intermediate cover, but do not include final cover.

Unit	Acres	Gross capacity (cubic yards)	Status
Phase 1	1.95		Operational
Phase 1 Exp.	0.28		Future
Phase 2	0.72		Future

Phase 3	1.28		Future
Total	4.23	90,850	

31. The facility is approved to accept approximately 15,000 tons per year, approximately 48 tons per day (based on 312 days per year), with a maximum variance in accordance with GS 130A-294(b1)(1) as listed in Attachment 1, Part II.
32. 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 North Carolina by G.S. 130A-309.10(f).

PART V: MISCELLANEOUS SOLID WASTE MANAGEMENT SPECIFIC CONDITIONS

General Conditions

33. Wastes received and product stored shall be maintained in reasonably sized piles with adequate fire breaks and lanes in accordance with the approved operational plans and the pertinent rules.
34. Surface water shall be diverted from all operational and storage areas to prevent standing water in operational areas and under or around storage piles. Water that comes in contact with solid waste shall be contained on-site or properly treated prior to discharge.
35. These areas shall be operated and maintained with sufficient dust control measures to minimize airborne emissions and to prevent dust from becoming a nuisance or safety hazard.
36. These areas shall be operated and maintained in a manner so as to minimize odors, prevent the creation of a nuisance, potential health hazard, or a potential fire hazard.
37. Effective vector control measures shall be applied as necessary to control flies, rodents, insects, or vermin.

Operational Conditions – Treatment & Processing (Wood Grinding)

38. The facility is permitted to operate a treatment and processing facility as defined in 15A NCAC 13B, Rule .0101(49).
39. The facility is permitted to receive land clearing waste as defined in 15A NCAC 13B, Rule .0101(23).
40. The facility is permitted to receive wooden pallets constructed of unpainted and untreated natural wood.
41. The facility is permitted to receive yard trash as defined in 15A NCAC 13B, Rule .0101(55). However, this ground material containing yard trash may not be distributed to the public unless it has been composted in accordance with Rule .1400.
42. The facility must manage the treatment and processing according to the Operation Plan included in Attachment 1, Part II: "List of Documents for the Approved Plan". This

document is included in the approved plan. Any revisions to the approved plan shall be approved by the Section, prior to implementation.

Operational Conditions – Type 1 Composting Unit

43. The facility is permitted to operate a compost facility as defined in 15A NCAC 13B, Rule .0101(7).
44. The facility is only permitted to receive waste materials described in 15A NCAC 13B, Rule .1402(f)(1) and (2).
45. The facility must monitor and maintain records to demonstrate the requirements of 15A NCAC 13B, Rule .1406 are continually being met. In addition, the facility is required to maintain records on the following information:
 - a. The amount of waste received into the facility,
 - b. the amount of compost land applied as a soil amendment,
 - c. the area of land compost was applied to as a soil amendment, and the amount and final termination of any remaining compost.

- *End of Permit Conditions* -