



Facility Permit No.: 4117-CDLF-2008
Permit to Operate
A-1 Sandrock C&D Landfill
November 27, 2012
Doc. ID: 17552
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NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

Division of Waste Management

Beverly Eaves Perdue
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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. 41-17-CDLF-2008

A-1 SANDROCK, INC.
is hereby issued a

PERMIT TO OPERATE

A-1 SANDROCK CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL
PHASE 1, Cells A, B, and C

located at 2091 Bishop Road (State Road 1116) between the intersections of Bishop Road with Groomtown Road and Viewmont Road, south of the City of Greensboro, in the Sumner Township, 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 facility is located and described by the legal description identified on the deeds recorded for this property listed in Attachment 1 of this permit.

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

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone: 919-707-8200\ Internet: <http://portal.ncdenr.org/web/wm/sw>

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ATTACHMENT 1

PART I: PERMIT HISTORY

Permit Type	Date Issued	Doc ID
Original Permit to Construct (PTC) – Phases 1	February 7, 2004	6224
PTC Modification - Phases 1	June 1, 2006	6225
Permit to Operate (PTO) – Phase 1, Cell A	April 17, 2009	7222
PTO Modification - Phase 1, Cells A & B	February 28, 2011	12797
PTO Modification - Phase 1, Cells A, B, & C	November 27, 2012	17552

PART II: LIST OF DOCUMENTS FOR APPROVED PLAN

1. *Site Application Report - Part 1 of 2, Hydrogeologic Investigation and Conceptual Plan, Construction and Demolition Debris Landfill (South Side)*. Prepared for: A-1 Sandrock, Inc. Prepared by: David Garrett, P.G., P.E. June 2002. Revised 20 August, 25 November 2002, and 6 November 2003 (Including a Drawing set Sheets 1-10).
2. *Site Application Report - Part 2 of 2, Facility Plan, Engineering and Design Hydrogeologic Report, A-1 Sandrock CDLF (South Facility), Guilford County, North Carolina*. Prepared for: A-1 Sandrock, Inc. Prepared by: David Garrett, P.G., P.E. September 2002. Revised 22 January, 12 February, and 30 March 2003 (Including a Drawing set Sheets 1-21).
3. Franchise Agreement between A-1 Sandrock, Inc. and Guilford County, North Carolina. November 6, 2003. Amended March 17, 2009. Including Articles of Incorporation, disposal fee limits, property description, and Articles of Amendments. DIN 7155.
4. Letter dated March 20, 2003 approval of the revised Sediment and Erosion Control Plan dated 22 January 2003 from the Division of Land Resources, Land Quality Section. DIN 7272.
5. Letter and drawing set describing the delay in construction and a revision to the phasing and progression of construction for the C&D landfill. Prepared for: A-1 Sandrock, Inc. by David Garrett, P.G., P.E. January 24, 2006.
6. *Permit to Operate Application, A-1 Sandrock C&D Landfill Phase 1, A-1 Sandrock CDLF (South Mine Facility), Guilford County, North Carolina*. Prepared for: A-1 Sandrock, Inc. Prepared by: David Garrett, P.G., P.E. March 2007. Resubmitted March 2009. DIN 7076.
7. *Facility and Operations Plan Update, A-1 Sandrock CDLF (Phase 1) and Processing Facility, Guilford County, North Carolina*. February 2009. Prepared for: A-1 Sandrock, Inc. Prepared by: David Garrett, P.G., P.E. (Including a Drawing set Sheets 1-10). DIN 7039. Revised on April 2, 2009. DIN 7223.

8. *Six-Month Demonstration Report, A-1 Sandrock, Inc. C&D Landfill and Processing Facility, Guilford County, NC (Permit #41-17).* December 21, 2009. Prepared by: David Garrett, P.G., P.E. including a letter report, photos, and drawings in compliance with Permit Condition No. 40 of the PTO (Doc ID 7222) issued April 17, 2009. (Doc ID 10016).
9. *Application for Permit to Construct and Operate, A-1 Sandrock, Inc. C&D Landfill and Processing Facility, Guilford County, NC (Permit #41-17).* Dated November 17, 2010 and revised through January 2011. Prepared by: David Garrett, P.G., P.E. including a letter report, a permit application for Phase 1 which includes the final processing facility operation plan incorporating conclusions from the Six-Month Demonstration Report and DWM Facility Audit Reports (Attachment 1), Geologist's Subgrade Report and photos for Cell B (Attachment 2), and As-built survey of drawings for Cell B (Attachment 3), and an updated Facility Plan Drawing (Attachment 4) which delineates the correct Phase 1 footprints of 8.18 acres, and correspondences. (Doc ID 12796).
10. Letter, soil testing results, soil boring logs and a drawing describing and confirming the soil types of silty sand (SM) and sandy silt (ML) in the base grade for Phase 1, Cell B of the C&D landfill in compliance with Rule 15A NCAC 13B .0542)2)(b). Prepared for: A-1 Sandrock, Inc. by David Garrett, P.G., P.E. January 26, 2011. (Doc ID 12795).
11. *Application for Permit to Operate, A-1 Sandrock, Inc. C&D Landfill Phase 1C, Greensboro, Guilford County North Carolina, Solid Waste Permit No. 41-17.* Prepared for: A-1 Sandrock, Inc. Prepared by: David Garrett, P.G., P.E. September 13, 2012 (Doc ID 17289) and revised through October 26, 2012 (Doc ID 17547).

PART III: PROPERTIES APPROVED FOR THE SOLID WASTE FACILITY

Guilford County, N.C. Register of Deeds					
Book	Page	Grantee	Grantor	Acres	Parcel No.
4378	198	Ronald E. Petty and Wife Betty B. Petty	Greensboro Cerebral Palsy Association, Inc.	69.833	12-03-0185-0-0739-W-007 and 12-03-0185-0-0754-00-003
Plat 149	93	Survey plat			
Total Site Acreage: 69.833 acres					

PART IV: GENERAL PERMIT CONDITIONS

1. This permit is issued by the North Carolina Department of Environment and Natural Resources, Division of Waste Management (the Division), 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 Operate for Phase 1- Cells A, B & C shall expire November 6, 2013 and 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. The Permit to Construct (Doc ID 6225) for the Construction and Demolition Debris Landfill has been registered in the Guilford County Register of Deeds on July 28, 2006 in Deed Book R 6573, Pages 1017 through 1027.
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 (Rule), 15A NCAC 13B, Article 9 of Chapter 130A of the North Carolina General Statutes (N.C.G.S. 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. Failure to comply may result in compliance action or permit revocation.
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 N.C.G.S. 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. Construction of future phases or cells of the construction and demolition debris landfill (C&DLF) requires written approval of the Section. An Application for Permit to Construct must be prepared in accordance with applicable statutes and rules in effect on that date and will be subject to a permitting fee.

- End of Section -

ATTACHMENT 3 CONDITIONS OF OPERATING PERMIT

PART I: OPERATING CONDITIONS

1. The Permit to Operate shall expire **November 6, 2013** in accordance with the franchise agreement for this facility issued by Guilford County, dated November 6, 2003 and amended March 17, 2009 (Attachment 1, Part II, Document No. 3, DIN 7155). Pursuant to 15A NCAC 13B .0201(g), no later than May 6, 2013, the permittee 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 in accordance with 15A NCAC 13B .0535 and franchise agreement.
2. This permit approves the operation of Phase 1 consisting of Cells A, B, & C totaling of approximately **8.18** acres, as well as the onsite environmental management protection facilities as described in the approved plans. Operation of any C&D landfill future phases or cells requires written approval of the Section and must be constructed in accordance with applicable statutes and rules
3. The following table lists the dimensions and details for the C&D landfill units, both existing and planned. Total gross capacity is defined as the volume measured from the bottom of waste through the top of final cover. The estimated service life of the landfill, Phases 1-4, is approximately 20 years, as stated in Attachment 1, Part II, Document No. 9.

C&D Unit	Acres	Gross Capacity (cubic yards)	Status
Phase 1, Cell A	2.54	62,370	Developed
Phase 1, Cell B ^(a)	3.18	186,242 ^(b)	Developed
Phase 1, Cell C ^(a)	2.46	221,720 ^(c)	Cell construction completed
Phase 2	7.82	608,193	Not developed
Phase 3	5.89	647,787	Not developed
Phase 4 (vertical expansion)	NA	505,536	Not developed
Total	21.9	2,231,848 ^(c)	

Note:

- a. This permit approves the redefined footprints of the Cells B and C at Phase 1 area consistent with the revised Facility Plan map Drawing No. E1B/ Sheet No. 3B (Attachment 1, Part II, Document No. 9).

8. Wastes listed in Rule 15A NCAC 13B .0542 (e) must not be accepted for disposal. They include, but are not limited to; hazardous waste, municipal solid waste, liquid waste, commercial or industrial wastes, and yard trash.
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 nor 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 permittee must actively employ a training and screening program at the facility prepared in accordance with 15 NCAC 13B .0544(e) and the approved Operations Plan (Attachment 1, Part II, Document 9) 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.
12. The facility operator must complete an approved operator training course in compliance with N.C.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 unit in accordance with N.C.G.S. 130A-309.25 and addressed by memorandum dated November 29, 2000.

13. The permittee must maintain permanent markers that accurately identify the edge of the approved waste disposal boundary.
14. The use of alternative daily cover requires approval, prior to implementation, by the Section. Requests for alternative daily cover approval must include a plan detailing the comprehensive use and demonstration for the effectiveness of the alternative cover. The plan must be developed according to Section guidelines. Plans that are approved by the Section will be incorporated into, and made a part of, the approved documents found in Attachment 1.
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. Financial assurance must be continuously maintained for the duration of the facility in accordance with the Rule 15A NCAC 13B .0546, 15A NCAC 13B .0547 (2), and N.C.G.S. 130A-295.2(h). During the active life of the C&DLF, the permittee must annually adjust the cost estimates including closure and post-closure activities for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s).
17. 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 Rule 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.
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.

PART II: WATER QUALITY AND LANDFILL GAS MONITORING AND REPORTING REQUIREMENTS

19. Groundwater, surface water, and landfill gas monitoring locations must be established and monitored as identified in the approved plans (Attachment 1, Part II, Document No. 7). Any proposed modification to an approved plan must be submitted to the Section and approved prior to implementation.
20. The permittee must obtain approval from the Section for the design, installation, development or abandonment of any groundwater monitoring well or landfill gas monitoring

well. Any modification to the approved Water Quality Monitoring Plan or Landfill Gas Monitoring Plan must be reviewed and approved by the Section.

21. Groundwater monitoring wells and surface water monitoring points must be sampled at least semi-annually in accordance with Rule 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 Rule 15A NCAC 13B .0544(d), landfill gas monitoring must be conducted quarterly, unless otherwise specified by the Section.
22. Monitoring reports of the analytical results for 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.
23. 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.
24. 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.
25. All forms, reports, maps, plans, and data submitted to the Section must include an electronic (pdf) copy.
26. 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.
27. Landfill gas monitoring results must be recorded on forms provided by the Section and be maintained in the facility's operating record.

PART III: REPORTING AND RECORDKEEPING REQUIREMENTS

28. 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 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 C&D 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 C&D waste, in tons from scale records, disposed in landfill cells since April 17, 2009, 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 Senior 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 at the facility. Documentation that a copy of the report has been forwarded to the county managers must be sent to the Regional Senior Environmental Specialist by the date due on the prescribed annual facility report form.
29. Copies of this permit, the approved plans (Attachment 1, Part II), and all records required to be maintained in the operating record by the permittee must be maintained at the facility and made available to the Section upon request during normal business hours.

30. The permittee 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.

PART IV: CLOSURE AND POST-CLOSURE

31. Closure and post-closure activities must be conducted in accordance with the approved Closure and Post-Closure Plans (Attachment 1, Part II, Document No.7) and Rule 15A NCAC 13B .0543.
32. The modification of the approved closure plan to construct an alternative cap system is allowed by Rule .0543 of 15A NCAC 13B; but the modified closure plan must be submitted for approval at least ninety (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 Rule 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 IV: MISCELLANEOUS TREATMENT AND PROCESSING UNIT SPECIFIC CONDITIONS

CONSTRUCTION AND LAND-CLEARING DEBRIS SORTING AND RECYCLING OPERATION UNIT

33. Operation of the Construction Debris and Land-Clean Debris (LCID) Sorting and Recycling Demonstration Project within the footprints of the Phase 1 is approved and must be in accordance with the approved Six-Month Demonstration Report and the updated Operations Plan (Attachment 1, Part II, Document Nos. 8 & 9).
34. Only the acceptable wastes including construction debris, selected cleaning and unpainted demolition debris (including concrete, brick, rock, and asphalt) and LCID listed in the

Processing Facility Operation Plan (Attachment 1, Part II, Document No. 9) are approved for recycling.

35. The maximum processed material storage volume that can be allowed at the processing area at any time are listed below:

Processed Material	Maximum Volume (cubic Yard)
Aggregate (beneficial fill)	2,000
Boiler Fuel	4,000
Mulch	4,000

However, the maximum volume of combustible materials (raw and processed) to be stockpiled at the processing area shall be limited to 6,000 cubic yards. A minimum of 25-foot distance between the stockpiles must be established and maintained at any time for access. Stockpiles of finished material must be (i) removed from the landfill property quarterly, or (ii) be wetted and turned quarterly or when dictated by the temperature which shall not exceed 120 degrees Fahrenheit.

36. All recyclables must be sorted and stored in covered containers or covered stockpiles by the end of each operating day. All non-recyclables in the sorting area must be properly moved and disposed in the C&DLF unit by the end of each operating day.
37. Permittee must maintain the minimum of 50-foot safety distances, established by signs, fences, and/or physical barricades, to separate the waste unloading areas (tipping areas) accessible by the public and waste sorting/grinding/processing area and the working face of the C&DLF disposal unit.
38. Permittee must separate the LCID processing area from the C&D processing area according to the approved Facility Plan map - Drawing No. E1B/ Sheet No. 3B (Attachment 1, Part II, Document No. 9). Commingling interim stage processed material from the construction debris and LCID waste stream is prohibited except concrete debris. However, the selected LCID wastes may be allowed to combine with similar C&D wastes in the post-processing stage into boiler fuel, mulch, or aggregate.
39. Commingling and stockpile of the pre-processed and processed concrete debris from the construction debris and LCID waste stream must be conducted at the designated area as shown on the approved Facility Plan map - Drawing No. E1B/ Sheet No. 3B (Attachment 1, Part II, Document No. 9).
40. When either the LCID processing area or the C&D processing area or both are to be operated over an inactive portion of the C&DLF, permittee must construct a minimum of 2-foot thick soil pad, in addition to the installed 2-foot thick interim soil cover, beneath the processing operating areas including tipping and grinding areas.

41. No grinding of wastes shall be take place in the rain.
42. Control measures must be utilized to minimize and eliminate visible dust emissions and blowing litter. Fugitive dust emissions are prohibited. Windblown materials must be collected by the end of each operating day, and no windblown material may be allowed to leave the facility boundary.
43. Documentation of delivery of all recycled and recovered material to valid end-users, processors, or recyclers must be maintained in the facility operating record.

- End of Permit Conditions -