

North Carolina
Department of Environment and Natural Resources



Division of Waste Management

December 27, 2002

Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Director

Mr. Mike L. Griffin
Griffin Brothers Companies
d/b/a Highway 55 C&D Landfill, LLC
19109 W. Catawba Ave.; Suite 118
Cornelius, North Carolina 28031

Subject: Solid Waste Permit No. 92-30
Highway 55 C&D Landfill, LLC Construction and Demolition(C&D) Landfill
Old Smithfield Road, Apex, Wake County, North Carolina.
PERMIT TO OPERATE: MODIFICATION #1 - COMPOST AND
REPROCESSING FACILITY (PHASE 3 AREA)

Dear Mr. Griffin:

The referenced PERMIT TO OPERATE is issued in accordance with N.C.G.S. 130A-294 and the N.C. Solid Waste Management Rules, 15A NCAC 13B, .0201(b)(1). Enclosed is attachment 1, which lists documents included in the Approved Plan. The approved facility description includes the area described in the attached legal description. Within the approved facility, the initial area identified as Phase I (5.80 acres of 17.80 acres) is permitted for operation as shown on Sheet C2 (master site grading plan) and Sheet C3 (Phase I grading plan), along with the LARGE TYPE 1 SOLID WASTE COMPOST AND REPROCESSING FACILITY located in the Phase 3 area of the site.

This permit is for the operation of the first five-year phase, Phase I (5.80 acres of 17.80 acres) is permitted for operation as shown on Sheet C3 (Phase I grading plan) dated 6 May 2002 of the approved plans. At the end of the first five-year operational period, Highway 55 C&D Landfill, LLC may apply for an expansion into and construction of Phase 2, but will be subject to all rules in effect at that time. This permit is issued to Griffin Brothers Companies d/b/a Highway 55 C&D Landfill, LLC as the owner and operator of the facility.

Please refer to the GENERAL CONDITIONS of this permit for recordation procedures, the definition of the approved plan, and for general terms of the Solid Waste Permit. The CONSTRUCTION AND OPERATION conditions describe permitted fill areas, acceptable waste types, landfill operation, and requirements which must be satisfied prior to operation of the facility as a Construction & Demolition landfill. Specific requirements for groundwater monitoring and facility record keeping and reporting are described in the MONITORING AND REPORTING conditions.

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Mr. Griffin
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Please review the Conditions of Permit thoroughly, especially the following specific conditions:

- A. Monitoring and Reporting Requirement No. 12(e) requires that the groundwater quality monitoring wells must be installed and sampled prior to accepting waste at this landfill. Please consult with Mr. Bobby Lufy, Solid Waste Section Project Hydrogeologist at (919) 733-0692, Ext. 258 just prior to well construction to help ensure that completed wells meet well construction standards and will be acceptable for monitoring purposes.

Again, please review the Conditions of Permit thoroughly and contact me if you have any questions or if you require further clarification. Mr. Robert Hearn is the Solid Waste Section Waste Management Specialist for this area and can be contacted at the DENR Raleigh Regional Office by phone at (919) 571-4700. Jim Barber can be contacted at the Raleigh Central Office at (919) 733-0692 Extension 255.

Respectfully,



Jim Barber
Permitting Branch Supervisor
Solid Waste Section

enclosure

cc: Mark Fry
Robert Hearn
Bobby Lufy
Dan Brewer

Raleigh Central File: Wake County, 92-30 Permit File

PERMIT NO.: 92-30
DATE ISSUED(PTC): 08/12/02
DATE ISSUED(PTO): 12/10/02
DATE MODIFIED(#1/PTO):12/27/02

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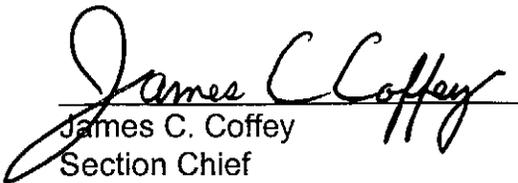
SOLID WASTE PERMIT

Griffin Brothers Companies
d/b/a Highway 55 C&D Landfill, LLC

is hereby issued a PERMIT TO OPERATE a

Construction and Demolition Landfill unit, PHASE 1 (5.80 acres of a 17.8 acre cell)
and
Large, Type 1 Solid Waste Compost and Reprocessing Facility (phase 3 area)

located north of and accessed by Old Smithfield Road and west of Highway 55 By-pass and further described by Parcel Identification Number 0740.02-55-8687 in Apex, Wake 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 of the site included with this permit and further identified on the deed recorded for this property in Book: 9099 and Page(s): 1039 - 1044 in the Wake County Register of Deeds for Highway 55 C&D Landfill, LLC.


James C. Coffey
Section Chief
Solid Waste Section
Division of Waste Management

PERMIT NUMBER: 92-30
DATE ISSUED(PTC): 08/12/02
DATE ISSUED(PTO): 12/10/02
DATE MODIFIED(#1/PTO): 12/27/02

SOLID WASTE PERMIT
PERMIT TO OPERATE

Griffin Brothers Companies d/b/a Highway 55 C&D Landfill, LLC
A Construction and Demolition Debris Landfill Unit - PHASE I

CONDITIONS OF PERMIT:

GENERAL

1. This PERMIT TO OPERATE will be in effect for five years from date of issuance (10 December 2002) of the permit to operate and will be reviewed in accordance with 15A NCAC 13B .0201 (c), under rules in effect at that time of review. Modifications to the facility may be required in accordance with rules in effect at the time of review. This permit shall not be effective unless the PERMIT TO CONSTRUCT along with the certified copy is filed in the Register of Deeds Office, in the grantor index under the name of the owner of the land in the county or counties in which the land is located. This PERMIT TO CONSTRUCT should be referenced and recorded against the deed recorded in Book: 9099 Pages: 1039 thru 1044. The certified copy shall be returned to the Solid Waste Section, within 30 days of receipt of the PERMIT TO CONSTRUCT, and shall have indicated on it the book number, page, date of recordation and the Register's seal. The PERMIT TO CONSTRUCT was recorded on 13 August 2002 at Book: 009539 and Pages: 00315 - 00335. When this property is sold, leased, transferred or conveyed, 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.
2. The approved plan is described by Attachment 1, "List of Documents for Approved Plan". Where discrepancies may exist, the most recent submittal and the Conditions of Permit shall govern. Some components of the approved plan are reiterated in the Conditions of Permit.
3. This permit is not transferable.
4. The service area for this facility consists of the County of Wake and its municipalities. The disposal capacity for the facility (PHASE 1) is approximately 858,000 cubic yards(appendix 1 - landfill capacity and borrow soil calculations), consistent with the final contours as shown on SHEET C5 (phase I closure plan) in the construction application. This capacity is based the receipt of approximately 300,000 tons/year based on operating 6 days/week (approx. 312 days/ year), with a maximum variance in accordance with GS 130A-294(b1)(1) and consistent with the approved franchise granted by the County of Wake dated 3 December 2001.

OPERATION:

5. This permit is for the operation of Griffin Brothers Companies d/b/a Highway 55 C&D Landfill, LLC Construction and Demolition(C&D) Landfill unit denoted as Phase 1 in accordance with the site plan SHEET C3, titled Phase I GRADING PLAN . At this time only 5.80 acres are approved for operation, consistent with the certification document dated 30 September 2002. Prior to placing waste in areas of Phase 1 not constructed at this time, consistent with the above mentioned drawing, certification that the remainder of Phase 1 has been constructed and graded in accordance with the approved plans will be required. Posts shall be installed at the north and south corners of the 5.80 acre constructed area, to delineate the eastern boundary, of the waste disposal limits consistent with the as-built drawing (dated 9/30/02) in the certification document dated 2 October 2002.
6. All sedimentation/erosion control activities will be conducted in accordance with the Sedimentation Control Act codified at 15 NCAC 4. Native vegetation shall be established on the completed C&D landfill unit in accordance with 15A NCAC 13B .0505 (3)(b)(c).
7. The following requirements shall be met prior to operation of the remaining 12 acres of PHASE 1 (i.e. Prior to the re-issuance of the original PERMIT TO OPERATE):
 - a. Phase 1 (remaining 12 acres) preparation shall be in accordance with the construction plan, SHEET C3, and the conditions specified herein; and construction of PHASE 1 shall be certified by the design engineer to be constructed in accordance with the approved plans.
 - b. Phase 1 unit inspection shall be made by a representative of the Division of Waste Management (DWM) with the owner/operator.
 - c. Signs shall be posted at the entrance of Highway 55 C&D Landfill, LLC landfill, in accordance with the Access and Safety Requirements under Operation Condition .0505(8).
 - d. Groundwater monitoring wells (see Monitoring and Reporting Requirements) shall be installed consistent with condition 14(a) thru (g). A baseline sampling for water quality shall be performed. Well construction records, soil boring logs and sample analysis results shall be submitted to the Section Hydrogeologist for review and approval prior to operation of the C&D unit. Additional interim ground water monitoring well(s) shall be installed to the south and east of the PHASE 1 footprint, within the review boundary for PHASE 1, at the design hydrogeologist recommended locations. A proposed location plan for the additional well(s) shall be submitted to the Solid Waste Section for review and concurrence.
 - e. Inspection and certification of the PHASE 1 subgrade (remaining 12 acres), by the project hydrogeologist, to determine if subgrade conditions are consistent with the observations made during the initial site investigations and information provided in the site hydrogeology report. If conditions found are different than conditions stated in the hydrogeologic report or that would impact or have an effect on the proposed ground water monitoring system; then a revised ground watering monitoring plan will be required.
 - f. No blasting shall take place on the site unless a pre-blast survey is performed and a blasting plan is submitted to the Solid Waste Section for review and concurrence.
 - g. All well construction records and soil boring logs(for existing and new wells), along with sample analysis results shall be submitted to the Section Hydrogeologist for review and approval prior to operation of the C&D unit.

8. This C&D unit (PHASE 1) is permitted to receive the following waste types:
- a. Land-clearing debris as defined in G.S. 130A-290, specifically, solid waste which is generated solely from land-clearing activities, such as stumps, trees;
 - b. Inert debris defined as solid waste which consists solely of material that is virtually inert, such as brick, concrete, rock and clean soil; and
 - c. Asphalt in accordance with G.S. 130-294(m).
 - d. Construction and demolition debris defined as solid waste resulting solely from construction, remodeling, repair or demolition operations on pavement, buildings, or other structures.

Yard trash as defined in G.S. 130A-290, shall not be disposed in the landfill area. However, yard trash, along with land-clearing debris, may be accepted for processing in the Yard Waste Composting Area or disposed of in a LCID landfill.

9. Operation of the C&D landfill unit shall conform to the operating procedures described in the approved plan, in accordance with Section .0505 of the Solid Waste Management Rules, and in accordance with the following requirements: Waste Acceptance and Disposal.
- a. The C&D unit shall accept only those solid wastes which it is permitted to receive as outlined in condition 8.
 - b. No municipal solid waste, hazardous waste, or liquid waste shall be accepted for disposal in the C&D unit.
 - c. The permittee shall implement a program for the C&D unit for detecting and preventing the disposal of MSW, hazardous or liquid wastes. The program shall include, at a minimum:
 - (i) Random inspections of incoming loads or other comparable procedures;
 - (ii) Records of any inspections;
 - (iii) Training of personnel to recognize hazardous and liquid wastes;
 - (iv) Development of a contingency plan to properly manage any identified hazardous, liquid or MSW wastes; The plan must address identification, removal, storage, and final disposition of waste.

Cover Material Requirements

- d. Operational soil cover of at least six inches shall be placed at least once per week or when the active area reaches ½ acre in size, or more often as necessitated by the nature of the waste, as to prevent the site from becoming a visual nuisance and to prevent fire, windblown materials, vectors, or excessive water infiltration.

- e. Areas which will not have additional waste placed on them for 12 months or more, but where final termination of operations has not occurred, shall be covered with a minimum of one foot of soil cover [15A NCAC 13B .0505(3)(b)].
- f. After final termination of disposal operations at the C&D unit or major part thereof, or upon revocation of a permit, the fill areas shall be covered with at least two feet of suitable compacted earth [15A NCAC 13B .0505(3)(c)] or a cap as specified by the rules in effect at the time of closure.

Access and Safety

- g. The C&D unit shall be adequately secured by means of gates, chains, berms, fences, or other security measures approved by the DWM to prevent unauthorized entry.
- h. An attendant shall be on duty at the Highway 55 C&D Landfill, LLC landfill at all times while it is open for public use to ensure compliance with operational requirements.
- i. The access road from Old Smithfield Road to the C&D unit shall be of all-weather construction and maintained in good condition.
- j. Dust control measures shall be implemented when necessary.
- k. Signs providing information on dumping procedures, the hours of operation, the permit number, and other pertinent information shall be posted at the entrance to the Highway 55 C&D Landfill, LLC landfill.
- l. Signs shall be posted stating that no MSW, hazardous waste or liquid waste can be received in the C&D unit.
- m. Traffic signs or markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions.
- n. The removal of solid waste from the facility is prohibited unless the owner/operator approves and the removal is not performed on the working face. If C&D recycling is to take place in the future; amendment of the operations plan shall be submitted to the Solid Waste Section for approval.
- o. Barrels and drums shall not be disposed of unless they are empty and perforated sufficiently to ensure that no liquid or hazardous waste is contained therein, except fiber drums containing asbestos. Asbestos waste shall be managed in accordance with 40 CFR 61.
- p. Open burning of solid waste is prohibited. Fires shall be reported to the Solid Waste Section by phone within 24 hours of an incident and written notification shall be submitted within 14 working days addressing the events at the site and future actions to be taken in the future to avoid and or mitigate potential fire hazards.
- q. The concentration of explosive gases generated by the C&D unit shall not exceed:

- i. twenty-five percent of the lower explosive limit(1.25% of CH₄) for gases in site structures (excluding gas control or recovery system components if necessary; and
- ii. One hundred percent of the lower explosive limit(5% CH₄) for gases at the property boundary. Installation of permanent gas monitoring wells may be required in the future to demonstrate compliance.

Erosion and Sedimentation Control

- r. Adequate sedimentation and erosion control measures shall be practiced to prevent silt from leaving the site of the C&D unit.
- s. Adequate sedimentation and erosion control measures shall be practiced to prevent excessive on-site erosion.
- t. Provisions for a vegetative ground cover sufficient to restrain erosion must be accomplished within 30 working days or 120 calendar days upon completion of any phase of C&D landfill unit development or as addressed in the approved Sedimentation and Erosion Control permit.

Drainage Control and Water Protection Requirements

- u. Surface water shall be diverted from the operational area.
 - v. Surface water shall not be impounded over or in waste.
 - w. A separation distance of at least four feet shall be maintained between the C&D waste and the groundwater table; as addressed in the site suitability application, hydrologic assessment section.
 - x. Solid waste(C&D) shall not be disposed of in water.
 - y. Leachate shall be contained on site or properly treated prior to discharge. An NPDES permit may be required prior to discharge of leachate to surface waters and or for land disturbing activities greater than one acre.
10. All pertinent landfill operating personnel will receive training and supervision necessary to properly operate this C&D landfill unit in accordance with G.S. 130A-309.25 and addressed by memorandum dated 29 November 2000 (enclosed).
 11. Ground water quality for the C&D landfill unit is subject to the classification and remedial action provisions referenced in Rule .0503 (2)(d) of 15A NCAC 13B.
 12. 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 shall address the following:
 - a. Design of a final cover system as required by 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.

MONITORING AND REPORTING REQUIREMENTS

13. Ground-water monitoring wells and monitoring requirements for the C&D landfill unit:
- a. Monitoring well design and construction shall conform to the specifications outlined in, "North Carolina Water Quality Monitoring Guidance Document for Solid Waste Facilities-DRAFT" and water quality sampling and analysis shall be done in accordance with Construction and Demolition landfills and Closed Sanitary Landfills
 - b. A total of seven locations for ground water wells (MW-1 upgradient and MW-2, MW-3, MW-4, MW-5, MW-6 and MW-7 downgradient locations for Phase I) and four surface water locations (SW-1, SW-2, SW-3 and SW-4) [in accordance with the Groundwater Monitoring Plan, as part of the Site Suitability Plan dated 19 April 2002 by Enviro-Pro, P.C.].
 - c. A geologist shall be in the field to supervise well installation. The exact locations, screened intervals, and nesting of the wells shall be established after consultation with the SWS Hydrogeologist at the time of well installation.
 - d. For each monitoring well constructed, a well completion record shall be submitted to DWM within 30 days upon completion.
 - e. Prior to the acceptance of any waste at the C&D unit, a baseline sampling event shall be completed and analysis submitted to the SWS Hydrogeologist.
 - f. Sampling equipment, procedures, and parameters shall conform to specifications outlined in the above-referenced guidance document,[Monitoring and Reporting Requirements, condition 13(a) pg. 9] or the current guidelines established by DWM at the time of sampling.
 - g. In order to determine ground-water flow directions and rates, each monitoring well shall be surveyed, and hydraulic conductivity values and effective porosity values shall be established for the screened intervals for each monitoring well.
 - h. The permittee shall sample the monitoring wells semi-annually or as directed by the SWS Hydrogeologist. In addition to the wells described in condition 14(b); surface water locations SW-1, SW-2, SW-3 and SW-4 shall also be sampled semi-annually as part of the monitoring system.
 - i. A readily accessible unobstructed path shall be initially cleared and maintained so that four-wheel drive vehicles may access the monitoring wells at all times.

14. The permittee shall maintain a record of all monitoring events and analytical data. Reports of the analytical data for each water quality monitoring sampling event shall be submitted to DWM in a timely manner.
15. The permittee shall maintain a record of the amount of solid waste received at the C&D unit, compiled on a monthly basis. Scales shall be used to weigh the amount of waste received.
16. On or before 01 August 2003, and each year thereafter, the permittee shall report the amount of waste received (in tons) at the C&D unit and disposed of in the C&D landfill unit to the Solid Waste Section and to all counties from which waste was accepted, on forms prescribed by the Section. This report shall include the following information:
 - a. The reporting period shall be for the previous year, beginning 01 July and ending on 30 June;
 - b. The amount of waste received and landfilled in tons, compiled on a monthly basis, and;
 - c. Documentation that a copy of the report has been forwarded to all counties from which waste was accepted.
17. All records shall be maintained on-site and made available to the SWS upon request, specifically records generated by conditions 9, 10, 12, 13, 14, 15 & 16.

Conditions for a LARGE, TYPE 1 SOLID WASTE COMPOST AND REPROCESSING FACILITY

18. Operation and maintenance of this facility shall be in accordance with the Solid Waste Compost Rules (15A NCAC 13B, Section .1400), the permit application and the Operation and Maintenance Manual, dated 17 December 2002 and signed by the design engineer on 18 December 2002, submitted with the permit application. Failure to comply may result in compliance actions or permit revocation.
19. This facility shall be operated in such a manner that erosion and runoff from the site shall be controlled. Any leachate generated at the facility shall be managed in such a manner that it will not be allowed to adversely impact ground or surface waters. Groundwater monitoring wells may be required if there is indication of the potential for groundwater contamination.
20. A storm water permit for the facility shall be maintained as long as the facility is in operation.
21. Only materials specifically listed in the permit application may be managed at this facility without adequate testing and prior approval of the Division of Waste Management.

22. Wastes with low carbon-nitrogen ratios, such as grass clippings, shall be incorporated into the windrows prior to the waste starting to compost (heat), create odors or attract vectors.
23. Temperatures of compost windrows shall be monitored at a frequency adequate to assure that the temperature requirements of Rule .1406(10) are met. If wood chip windrows generate temperatures in excess of 115 degrees F they should be treated as compost.
24. Facility operation records shall be maintained in accordance with Rule .1408(b).
25. An annual report of facility activities for the fiscal year July 1 to June 30 shall be submitted to the Division of Waste Management, Solid Waste Section, by August 1 of each year, in accordance with Rule .1408(c) of the Solid Waste Compost Rules.
26. The facility 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.
27. This permit shall expire on 27 December 2007. A properly completed application for permit renewal, consistent with .0201(e), shall be submitted at least ninety (90) days prior to the permit expiration date in order to assure continued operation.
28. Changes in ownership or receiving additional types of wastes shall require a permit modification.

ATTACHMENTS
GRIFFIN BROTHERS COMPANIES d/b/a HIGHWAY 55 C&D LANDFILL, LLC
List of Documents for the Approved Plan

SITE SUITABILITY:

1. Report - Site Application - Highway 55 C&D Landfill and Recycling Center - prepared for Highway 55 C&D Landfill, LLC Construction & Demolition Landfill - Wake County, North Carolina; application dated 19 April 2002 and received 24 April 2002 from Enviro-Pro, P.C.;
2. Response to Comment dated 19 March 2002 - Site Suitability Permit Application, response received 24 April 2002 and 8 May 2002 from Enviro-Pro for information dated 19 April 2002 and 7 May 2002;
3. Second Response to Comment letter dated 3 July 2002 - Site Suitability Permit Application - response dated 11 July 2002 "Revised Site Plan Application Report" from Enviro-Pro;
4. Certified minutes from Wake County dated 3 December 2001 and 19 November 2001 indicating the vote of the Wake County Commissioners in approving the franchise for Highway 55 C&D Landfill, LLC, received in the Revised Site Suitability application dated April 2002 received 24 April 2002;
5. Special Use Permit recorded in Deed Book: 9099 and Pages: 1039 thru 1044, as part of the Site Suitability application dated April 2002 received 24 April 2002;

CONSTRUCTION:

6. Deed description for re-combination of properties consisting of Book: 9099 and Pages: 1039 - 1044 representing 116.333 acres and Book: 9488 and Pages: 0922 - 0923 representing .963 acres.
7. Construction certification report dated 2 October 2002 for the operation of 5.80 acres of 17.80 acres, of Phase 1.

OPERATION:

8. Initial sampling report of monitoring system dated 18 October 2002.
9. Recorded permit to construct dated 13 August 2002 in Book: 9539 and Pages: 00315 to 00335.
10. Reprocessing facility application dated 17 December 2002, signed by design engineer on 18 December 2002, received by the Solid Waste Section on 19 December 2002.

