Environmental Consultants
and Contractors

SCS Engineers, PC
2520 Whitehall Park Drive
Suite 450
Charlotte, NC 28273-3557

704 504-3107
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SCS ENGINEERS, PC

Permit No.	Scan Date	DIN
5504-CDLF-1999	**May 6, 2014**	**20961**

File No. 02211320.01
May 5, 2014

RECEIVED
May 5, 2014
Solid Waste Section
Asheville Regional Office

MEETING AGENDA

SUBJECT: Application for Permit to Construct
Lake Norman C&D Landfill – Permit No. 55-04
Cells 3A, 3B, 4A and 4B

BACKGROUND INFORMATION

1. Last Permit to Operate was issued on April 1, 2011 for Cells 1A, 1B, 2A and 2B.
   - Included landfill capacity of 3,271,782 cubic yards.
   - Included landfill area of 31.77 acres.
   - Included acceptance tonnage of 200,000 tons per year.
   - Included updated Operations Plan dated January 6, 2009 that was approved by NCDENR.
   - Included updated Closure and Post-Closure Plan dated August 8, 2008 that was approved by NCDENR.
2. Permit to Construct dated August 31, 2005 was issued for Cells 2A – 4B.

Landfill Parameters			
C&D Unit	Acres	Gross Capacity (cubic yards)	Status
1A	10.17	985,975	Constructed
1B	5.40	638,269	Constructed
2A	2.95	305,548	Constructed
2B	2.63	198,219	Constructed
3A	2.67	304,551	Proposed
3B	2.64	294,780	Proposed
4A	2.61	318,862	Proposed
4B	2.70	225,578	Proposed
Total	31.77	3,271,782	

PROPOSED CHANGES

1. Change landfill base grades to reflect current Design Hydrogeological Report seasonal high ground-water table and the bedrock datum plane contours (*no bedrock was encountered*).

2. Maintain minimum post-settlement 4-feet separation.

3. Increase airspace up to the allowable 10-percent increase. 10 percent equates to 327,178 cubic yards.

PROPOSED CONSTRUCTION

Construct Cell 3A in 2014 based on the previously approved base grades. The cells thereafter will have new base grades.

NCDENR

North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

August 30, 2005

Permit No.	Scan Date	DIN
5504	March 14, 2011	13231

SEP 2005
Management

Mr. Mike Gurley, Regional Engineer
Lake Norman Landfill, Inc.
5105 Morehead Road
Harrisburg, North Carolina 28075

Re: Lake Norman C&D Landfill - Cells 2A-4B,
Solid Waste Permit No. 55-04

Dear Mr. Gurley:

Enclosed please find a modified solid waste Permit to Construct and the accompanying conditions for the subject facility, issued in accordance with N.C.G.S. 130A-294 and the NC Solid Waste Management Rules. The modified permit approves construction in the area identified as Cells 2A-4B, of the approved plan in addition to the previously approved Subcell 1A and 1B. Included in this modification is approval of the adjusted waste limits boundary along the northern edge of Subcell 1A as identified in the letter submitted by ESP Associates, P.A. dated 17 January 2002. This permit is for a five-year period from the original issue date and is subject to review on or before 30 August 2010 or until the approved capacity of the certified area is exhausted.

Please review the conditions of permit carefully. If you have any questions or comments about the enclosed permit, please feel free to contact me at (704) 235-2163 or the Solid Waste Specialist for your area, Teresa Bradford, at (704) 663-1699.

Sincerely,

John E. Murray, P.E.
Regional Environmental Engineer
Solid Waste Section

cc: Jim Barber, SWS
Brent Rockett, SWS
Teresa Bradford, SWS
Dave Wasiela, ESP Associates, P.A.
Raleigh Central Files: Lake Norman C&D Landfill, Lincoln County - Permit No. 55-04

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PERMIT NUMBER:	28-03
ORIGINAL DATE ISSUED(ptc):	03/25/99
DATE MODIFIED (pto):	11/21/00
DATE MODIFIED(pto/Subcell 1B/Phase 1B):	04/23/02
DATE MODIFIED(pto/Subcell 1A&1B):	03/31/05
DATE MODIFIED(ptc/cell 2A thru 4B):	08/31/05

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT
1646 MAIL SERVICE CENTER; RALEIGH, NC 27699-1646

SOLID WASTE PERMIT

LAKE NORMAN LANDFILL, INC.

is hereby issued a PERMIT TO CONSTRUCT

CELLS 2A THRU 4B of the Construction/Demolition Landfill Facility

located on Quarry Lane off NC Highway 16 in Lincoln County, North Carolina based on the site plan submitted to the Section dated 10 March 2005 and 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 on the boundary survey for Lake Norman Landfill, Inc., in the original site application dated February 1998.

Donald J. Barber
Permitting Branch Supervisor
Solid Waste Section
Division of Waste Management

PERMIT NO. 55-04
ISSUED 25 MARCH 1999
MODIFIED 21 NOVEMBER 2000
MODIFIED 23 APRIL 2002 (PTO Subcell 1B, Phase 1)
Modified 31 March 2005 (Extension of PTO for Cell 1B for Continued Operation)
Modified 30 August 2005 (PTC Cell 2A to 4B)

LAKE NORMAN LANDFILL

SOLID WASTE PERMIT
CONSTRUCTION AND DEMOLITION LANDFILL

CONDITIONS OF PERMIT:

General:

1. This permit shall not be effective unless the certified copy is filed in the Register of Deeds office and indexed in the grantor index under the name of the owner of the land in the county or counties in which the land is located. The certified copy of the permit, affixed with the Register's seal and the date, book, and page number of recording shall be returned to the Division of Waste Management (the Division).

2. 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.

3. This permit is for a period of five years and is subject to review on or before 30 August 2010, as per 15A NCAC 13B .0201(c), according to the issuance date of the permit. Modifications to the facility may be required in accordance with the rules in effect at the time of review. This facility may receive solid waste that is generated within a service area consisting of North Carolina and South Carolina.

4. The approved plan for this facility is described in Attachment 1, "List of Documents for Approved Plan". Where discrepancies exist, the most recent submittal and these Conditions shall govern. Some components of the approved plan are reiterated in these Conditions.

5. This permit is not transferable.

6. A copy of this permit and the approved plan shall be maintained at the facility.

7. The owner/operator is responsible for obtaining any and 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.

8. The applicant, prior to operation of the facility, shall

comply with all applicable lawfully adopted local ordinances.

Construction and Operation:

9. This permit is for the development of the Lake Norman Construction and Demolition Landfill, Cells 1A through 4B within the approved facility description, in accordance with the approved plan. Initial development shall begin with Cell 1A.

10. This solid waste management facility is permitted to receive the following waste types:

    a. Land-clearing debris as defined in G.S. 130A-290, specifically, solid waste that is generated solely from land-clearing activities, such as stumps, trees, etc.;
    b. Inert debris defined as solid waste, which consists solely of material that is virtually inert, such as brick, concrete, rock and uncontaminated soil;
    c. Asphalt in accordance with G.S. 130A-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;

    Note: Yard trash defined as solid waste consisting solely of vegetative matter resulting from landscaping maintenance (see G.S. 130A-290) is banned from disposal in this facility as per NC General Statutes.

11. All sedimentation and erosion control measures will be conducted in accordance with the Sedimentation Control Act codified at 15 NCAC 4. Native vegetation shall be established on the completed landfill.

12. Operation of the facility shall occur in accordance with the NC Solid Waste Management Rules 15A NCAC 13B .0505, "Operational Requirements for Sanitary Landfills", the approved Operations Plan, and the following specific conditions:

    Waste Acceptance and Disposal

    a. The facility shall accept only those solid wastes, which it is permitted to receive.
    b. No municipal solid waste, hazardous waste, or liquid waste shall be accepted for disposal.
    c. Waste shall be restricted to the smallest area feasible and compacted as densely as practical into cells.

d. The permittee shall implement a program at the facility for detecting and preventing the disposal of unacceptable wastes. The program shall include, at a minimum:
   i. Random inspections of incoming loads or other comparable procedures;
   ii. Record keeping which documents these inspections;
   iii. Training of personnel to recognize hazardous, liquid, and other unauthorized waste types;
   iv. Development of a contingency plan to properly manage any identified hazardous or problem wastes; The plan must address identification, removal, storage, and final disposition of these wastes.

Cover Material Requirements

e. Operational soil cover of at least six inches shall be placed at least once per week or when the active area reaches 1/2 acre in size or more often as necessitated by the nature of the waste so as to prevent the site from becoming a visual nuisance and to prevent fire, windblown materials, vectors or water infiltration.
f. 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.
g. After final termination of disposal operations at the site, or major part thereof, or upon revocation of a permit, the final cover system shall be installed.

Access and Safety

h. The facility shall be adequately secured by means of gates, chains, berms, fences, or other security measures approved by the Division to prevent unauthorized entry.
i. An attendant shall be on duty at the site at all times while it is open for public use to ensure compliance with operational requirements.
j. The access road to the site shall be of all-weather construction and maintained in good condition.
k. Dust control measures shall be implemented when necessary.
l. Signs providing information on dumping procedures, the hours of operation, the permit number, the emergency contact, and other pertinent information shall be posted at the site entrance.
m. Signs shall be posted stating that no MSW, hazardous waste or liquid waste can be received.
n. 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.

o. 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.

p. 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.

q. Open burning of solid waste is prohibited.

r. The concentration of explosive gases generated at the facility shall not exceed:

   i. twenty-five percent of the limit for gases in site structures (excluding gas control or recovery system components); and

   ii. the lower explosive limit for gases at the facility boundary.

Erosion and Sedimentation Control

s. Adequate sedimentation and erosion control measures shall be practiced to prevent silt from leaving the site.

t. Adequate sedimentation and erosion control measures shall be practiced to prevent excessive on-site erosion.

u. 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 development.

Drainage Control and Water Protection Requirements

v. Surface water shall be diverted from the operational area.

w. Surface water shall not be impounded over or in waste.

x. A separation distance of at least four feet shall be maintained between waste and the ground-water table.

y. Solid waste shall not be disposed of in water.

z. 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.

13. All pertinent landfill operating personnel will receive training and supervision necessary to carry out their duties and operate this landfill in a safe manner.

14. 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 facility 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;
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:

15. Ground water quality at this facility is subject to the classification and remedial action provisions referenced in Rule .0503 (2)(d) of 15A NCAC 13B. Water quality monitoring for the C&D landfill shall occur according to the following conditions:

a. The permittee shall sample the monitoring wells semi-annually or as directed by the Division Hydrogeologist.
b. Monitoring well design and construction shall conform to the specifications outlined in Attachment 2, "North Carolina Water Quality Monitoring Guidance Document for Solid Waste Facilities."
c. Sampling equipment, procedures, and parameters shall conform to specifications outlined in the above-referenced guidance document, (Attachment 2), or the current guidelines established by the Division at the time of sampling.
d. A total of four monitoring well locations as illustrated in the approved plans shall be established to monitor the facility.
e. 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 Division Hydrogeologist at the time of well installation.
f. Prior to the acceptance of any waste at the facility, a baseline sampling event shall be completed. The results of this sampling event shall be submitted to the Division Hydrogeologist in a timely manner (see Construction and Operation Condition 4 (d)).
g. Well completion records and boring logs shall be submitted to The Division at the same time as the results of the initial sampling event or within 30 days upon completion of any new wells.
h. 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.

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.

16. The permittee shall establish two locations for surface water sampling. Surface water shall be sampled and analyzed semi-annually according to the protocol and parameters required by the Division at the time of sampling.

17. 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 (15.a, 15.h. & 16.) shall be submitted to the Division in a timely manner.

18. Explosive gas monitoring shall be performed as needed to ensure compliance with the standards in Rule .0503 (2)(a).

19. The permittee shall maintain a record of the amount of solid waste (in tons) received at the facility, compiled on a monthly basis. Scales shall be used to weigh the amount of waste received.

20. On or before 01 August (or an earlier date as requested by the Division) of each year, the permittee shall report the amount of waste received at this facility and disposed of in the landfill to the Division and to all counties from which waste was accepted, on forms prescribed by the Division. 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, according to Condition 5 described above; and
    c. Documentation that a copy of the report has been forwarded to all counties from which waste was accepted.

21. All pertinent records and reports shall be maintained on site and made available to the Division upon request.

ATTACHMENT 1

List of Documents for the Approved Plan

The following documents are incorporated into the approved plan for Permit No. 55-04:

1. Combination Site Plan and Construction Plan Application; Submitted by S&ME, Inc. on 20 February 1998.

2. Official Zoning Documentation and Lincoln County Permitting Status submitted 14 July 1998 by S&ME, Inc.

3. Response to Hydrogeologic Technical review letter, submitted 4 August 1998 by S&ME, Inc.

4. Revised Grading Plan and Cross Sections depicting Phase 1A, 1B, and 1C of the landfill; Submitted 10 August 1998 by S&ME, Inc.

5. Legal Description of the Facility.

6. Application for a Permit to Operate dated 25 February 1999 from S&ME, Inc. certifying an initial 5 acre portion of Subcell 1C.

7. Revised Construction Plan, Operation Plan, and Property Deed submitted 9 March 1999 by S&ME, Inc. renaming the subcells, altering the order of operations, and certifying a revised 3 acre portion of Subcell 1A.

8. Addendum to the Application for a Permit to Operate dated 31 March 1999 and submitted by S&ME, Inc. on behalf of Lake Norman Landfill certifying an additional one acre portion of Subcell 1A to be included with the previously certified 3 acres.

9. Letter submitted by S&ME, Inc. on behalf of Lake Norman Landfill dated 30 April 1999 indicating revised base grades in the certified areas of Subcell 1A due to rock encountered during construction. Base grades were raised four feet to

provide separation to rock.

10. Construction Quality Assurance Submittal dated 24 October 2000 and submitted by ESP Associates, P.A. on behalf of Lake Norman Landfill certifying the remaining 5.8 acres of Subcell 1A as being constructed according to the approved plans. Two small areas of subgrade along the eastern toe of slope were adjusted due to rock encountered during excavation.

11. Minor Permit Modification request dated 17 January 2002 and submitted by ESP Associates, P.A. on behalf of Lake Norman C&D Landfill adjusting the waste limit boundary along the northern edge of Subcell 1A due to a surveying error during construction. Since neither the required 200 foot property line buffer, floodplain restriction, or vertical separation to seasonal high groundwater is affected; the request to modify the waste boundary is approved.

12. Construction Quality Assurance Submittal dated 11 April 2002 and submitted by ESP Associates, P.A. on behalf of Lake Norman Landfill certifying approximately 1.4 acres of Subcell 1B (designated as Subcell 1B, Phase 1) as being constructed according to the approved plans. Constructed base grades were slightly higher in some areas of this phase to improve stormwater drainage out of Subcell 1B and to provide separation to a small area of rock encountered along the boundary between 1A and 1B during excavation.

13. Document from the ESP Associates, P.A.of Charlotte, North Carolina dated 28 March 2005 giving remaining airspace and life in 1A and 1B of Lake Norman C&D Landfill Permit 55-04.

14. Application for Permit to Construct Renewal from ESP Associates, P.A. of Charlotte, North Carolina dated 10 March 2005. This Application contains the plan Sheets 1-15 and the submittal including the franchise from Lincoln County (Dated 5 January, 2004, "Waste Flow Rates and Capacities" for years 2005-2010 (630,000tons) and the Closure Plan. The development of these cells will contain approximately 2.2 million cubic yards of Gross Airspace.

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NCDENR

North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director | Division of Waste Management | Michael F. Easley, Governor William G. Ross Jr., Secretary

August 19, 2005

MEMORANDUM

To: John Murray

From: Brian Wootton

Subject: Application for Permit to Construct Renewal for,
Lake Norman C&D Landfill – Permit No.55-04
Lake Norman Landfill, Inc.
Lincoln County
Construction of cells 2A through 4B
Final Comments

I have reviewed the Application for Permit to Construct Renewal (proposed construction of cells 2A through 4B) in part for hydrogeologic concerns. The application was received on March 14, 2005. On March 30, 2005 I requested additional information via a phone message to Dave Wasiela of ESP Associates, on behalf of Lake Norman Landfill, Inc. requesting water level data from the nearby ground-water monitoring and observation wells to see if the seasonal high ground-water levels were similar to the levels used to establish base grades in the previous Permit to Construct. I did not receive the requested information, but did glean the information from our own files recently. Having reviewed the ground-water level information and previously supplied ground-water level data (from piezometers/observation wells associated with the previous Permit to Construct application (2/20/98), I conclude there is no reason to change the base grades that was previously established (7/31/98). Also, according to the boring log profiles submitted with the previous Permit to Construct application, bedrock was encountered below the potentiometric surface; therefore, there is more than the required minimum of four (4) feet separation requirement between the base grade and top of rock. However, alternative plans (i.e. adjustments to base grades) should be addressed in case unforeseen rock outcrops are encountered during construction/excavation that are less than the four (4) feet buffer requirement. **The Study and supporting information meets the criteria required in the Rules [(i.e. 15A NCAC 13B .0503(2)(d)(i), 15A NCAC 13B .0505(7)(a) and Solid Waste Section policy]; therefore, I have no objection to issuance of this portion for Permit to Construct Renewal, based on these rules.**

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Prior to construction activities commencing, the Solid Waste Section requests the following information is addressed from the permittee.

Prior to construction of each cell, any piezometers in the cell to be constructed are to be abandoned by overdrilling first and sealing each piezometer with cement grout according to 15A NCAC 2C .0113 (b)(1), "procedures for permanent abandonment of wells". In portions of the site where soil areas to be undercut, do not grout the wells up to pre-grade land surface, but up to proposed base grade surface in order to prevent cutting off excess vertical grout and possibly damaging the grouted piezometers.

Submit copies of well abandonment records for each piezometer/boring abandoned according to 15A NCAC 02C. 0114(b).

Construction Conditions: (Include these conditions in the Permit to Construct)

The owner's geologist shall examine the cell excavation and note any pertinent geologic features exposed during the construction process and shall notify the Solid Waste Section Hydrogeologist of these findings prior to placement of any liner materials.

Please contact me with any questions or comments. I can be reached at (919) 508-8524 or by e-mail.

Sincerely,

Brian Wootton

Brian Wootton

cc: Jim Barber, Solid Waste Section
Central File