



North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

Donald R. van der Vaart
Secretary

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

MUNICIPAL SOLID WASTE AND C&D LANDFILL FACILITY
Permit No. 5103

JOHNSTON COUNTY
is hereby issued a

PERMIT TO CONSTRUCT

5103-CDLF – JOHNSTON COUNTY C&D LANDFILL, AREA 2, CELL 2

PERMIT TO OPERATE

5103-MSWLF - JOHNSTON COUNTY MSW LANDFILL, PHASE 4A, CELL 3
5103-CDLF – JOHNSTON COUNTY C&D LANDFILL, AREA 2, CELL 1

PERMIT FOR CLOSURE

MSW PHASES 1 THROUGH 4 AND C&D AREA 1

Located at 680 County Home Road, west of Smithfield, in Johnston 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 GENERAL PERMIT CONDITIONS AND INFORMATION

Permit To Operate Data Table

Permit	Issuance Date	Expiration	DOC ID
5103-MSWLF	May 27, 2015	September 28, 2019	24159
5103-CDLF	May 27, 2015	September 28, 2019	24159

General Conditions

1. This permit is issued by the North Carolina Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Section (Section). In accordance with North Carolina Solid Waste Management Rule 15A NCAC 13B .0201(d), a solid waste management facility permit shall have two parts: a Permit to Construct and a Permit to Operate. The Permit to Construct 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. This permit shall not be effective until the certified copy of this permit which references legal descriptions for all land within the solid waste management facility boundary is recorded 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, must be returned to the Section within 30 calendar days of issuance of this permit. If the Section does not receive the certified copy of the recorded permit within 30 calendar days of issuance of the permit, then and in that event, the permit is suspended and of no effect until the date the Section receives the certified copy of the recorded permit.
4. When this property is sold, leased, conveyed, or transferred in any manner, the deed or other instrument of transfer must 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 beginning construction or receiving waste at this facility, the permittee shall be considered to have accepted the terms and conditions of this permit.
6. Construction and operation of this solid waste management facility must be in accordance with the Solid Waste Management Rules, 15A NCAC 13B; Article 9 of Chapter 130A of the North Carolina General Statutes (NCGS 130A-290, et seq.); the conditions contained

in this permit; and the approved plan. Should the approved plan and the rules conflict, the Solid Waste Management Rules shall take precedence unless specifically addressed by permit condition. Failure to comply may result in compliance action or permit revocation.

7. The permit is issued based on the documents submitted in support of the application for permitting the facility 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 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.

Properties Approved for the Solid Waste Facility

Johnston County, N.C. Register of Deeds			
Book	Page	Grantee (sold to)	Acres
763	525	Johnston County	86.6
1228	652	Johnston County	248.75
1215	747	Johnston County	63
E-3	1	Johnston County	~29
2109	599	Johnston County	14.02
Plat Book 81	219	Johnston County Landfill Recombination Survey	
Total Site Acreage: 529 acres			

Johnston County Parcel No. 15I08028. The actual disposal area consists of approximately 226.4 acres, which includes Phases 1 through 10, both MSW and C&D (construction and demolition debris) landfill units. Deeds have not been located for all parcels of the landfill property.

Permitting History

Issuance	Date	Doc ID
Permit No. 51-01 PTO Phase 4	March 13, 1984	
Permit No. 51-01 PTO vertical expansion	October 25, 1990	
Permit No. 51-01 PTO vertical expansion	July 30, 1991	
Permit No. 51-01 PTO C&D Phase 4A (C&D Area 1)	December 22, 1998	
Permit No. 51-01 PTO C&D Phase 4A (C&D Area 1)	January 22, 2002	14472
Permit No. 51-02 PTC Phase 5	December 22, 1995	
Permit No. 51-02 PTO Phase 5	August 6, 1997	
Permit No. 51-02 PTO Phase 5 leachate recirculation	March 27, 2001	
Permit No. 51-03 PTC MSW Phase 4A Cells 1 and 2 and C&D Phase 4A (C&D Area 1)	April 3, 2002	14584
Permit No. 51-03 PTO Phase 5 and C&D Phase 4A vertical expansion (C&D Area 1)	April 3, 2002	14584
Permit No. 51-03 PTO MSW Phase 4A Cell 1 and C&D Phase 4A (C&D Area 1)	December 20, 2002	
Permit No. 51-03 PTO MSW Phase 4A Cell 2 and C&D Area 1	August 1, 2005	14587
Permit No. 51-03 PTC C&D Area 2, Cell 1	August 31, 2006	14588
Permit No. 51-03 PTO C&D Area 2, Cell 1	August 24, 2007	2934
Permit No. 51-03 PTC MSW Phase 4A, Cell 3	January 16, 2009	6088
Permit No. 51-03 PTO MSW Phase 4A, Cell 3, fill sequence 1	September 28, 2009	8483
Permit No. 51-03 PTO MSW Phase 4A, permit renewal	May 27, 2015	24159
Permit No. 51-03 PTC C&D Area 2, Cell 2, and PTO permit renewal	May 27, 2015	24159

- In 1973, landfill operations began in Phase 1 on this property. Phases 2, 3, and 4 began operating in 1974, 1979, and 1984, respectively. In 1984, landfill permit number 51-01 was issued for the facility. Phases 1 through 4 were not constructed with a liner below the waste. Acreage and volume information on the unlined Phases of the landfill are following:

Unlined Landfill Unit	Area (acres)	Gross Capacity (cubic yards)
Phases 1 and 2	22.1	732,363
Phase 3	25.4	1,174,139
Phase 4	37.3	1,631,731
Total Unlined	84.8	3,538,233

2. In 1997, landfill operations began in Phase 5, which was constructed with a Subtitle D liner. Phase 5 was issued permit number 51-02.
3. In 1998, a separate C&D landfill cell began operating on top of closed MSW Phase 4. This area was called C&D Phase 4A at that time, but was later named C&D Area 1.
4. In 2002, permit number 51-03 was issued. This permit approved operation of MSW Phase 4A (Cell 1), which is a lined landfill cell between closed MSW Phases 3 and 4. Phase 4A also piggybacks the side slopes over closed Phases 3 and 4. This permit issuance incorporated previous permits 51-01 and 51-02 into one permit, now called permit number 51-03.
5. In 2005, landfill operations began in MSW Phase 4A, Cell 2. A vertical expansion was approved for C&D disposal in C&D Area 1 on top of closed Phase 4.
6. In 2007, C&D Area 2 was approved and began operating. Part of this area (Cell 1) is adjacent and east of closed MSW Phase 3, and part of Area 2 (Cell 2) piggybacks the side slope of closed Phase 3. C&D Area 2 is designed with a geomembrane liner and leachate collection system.
7. In 2009, the last cell of MSW Phase 4A, Cell 3, was approved for operation.
8. In 2015, the property boundary was increased to include the yard waste management area and additional buffer east of C&D Area 2. Property parcels were combined.

List of Documents for the Approved Plan

Note – Documents referenced in this permit (e.g., Doc ID 24165) can be viewed online at the NC Solid Waste Section website in the Documents database.

1. *Johnston County Subtitle D Landfill Phase 5, Permit 51-02. Construction Quality Assurance (CQA), As-Built Certification, and Revised Engineering Plan. Prepared by: McKim & Creed Engineers, P.A., Cary, NC. March 1997. 3 Volumes and drawings.*
2. *Letter Grimes to Fry. Requesting approval of Alternative Daily Cover, Tarpomatic. July 27, 1998. Doc ID 14565.*
3. *Johnston County C&D Landfill Vertical Expansion. Prepared by: G.N. Richardson & Associates, Inc., Raleigh, NC. December 1998.*
4. *Cap Closure Certification Letter for the Johnston County Landfill, Dec. 1998.*
5. *Permit to Construct Application. Johnston County MSW Landfill-Phase 4A. Prepared by: G.N. Richardson & Associates, Inc., Raleigh, NC. April 2000. Revised December 2001.*
6. *Permit Modification Application. Johnston County C&D Landfill Vertical Expansion. Prepared By: G.N. Richardson & Associates, Inc., Raleigh, NC. January 2002. (Modification, Area 4A, Permit No. 51-01).*

7. Division of Water Quality Permit No. WQ0019631, Johnston County, Conjunctive Use at Johnston County Landfill, Reclaimed Water Utilization System. March 27, 2002. Modified June 13, 2003, December 20, 2004, May 5, 2006, and November 16, 2006.
8. *CQA Report, Johnston County MSW Landfill, Phase 4A, Cell 1.* Prepared by: G.N. Richardson & Associates, Raleigh, NC. December 2002.
9. *Permit Modification Application. Johnston County C&D Landfill Vertical Expansion.* Prepared By: G.N. Richardson & Associates, Inc., Raleigh, NC. December 2003, Revised August 2005.
10. *CQA Report, Johnston County MSW Landfill, Phase 4A, Cell 2.* Prepared by: G.N. Richardson & Associates, Raleigh, NC. July 2005.
11. *Permit to Construct Application. Johnston County C&D Landfill, Area 2.* Prepared by: G.N. Richardson & Associates, Inc., Raleigh, NC. October 2005. Revised May 2006.
12. *CQA Report, Johnston County C&D Landfill, Area 2, Cell 1.* Prepared By: Richardson Smith Gardner & Associates, Raleigh, NC. June 2007. Doc ID 2769.
13. *Johnston County Landfill Equalization Facility Drawings.* Prepared by: Dewberry & Davis, Inc., Raleigh, NC. October 2007.
14. Letter from Pieter Scheer, Richardson, Smith, Gardner & Associates, to Donna Wilson, NC DENR, November 6, 2007. Revised Permit Modification Request, Modification of Existing Leachate Storage Pond for use as Equalization Basin. Doc ID 3348.
15. *Permit Amendment Application, Johnston County MSW Landfill, Phase 4A, Cell 3.* Prepared By: Richardson Smith Gardner & Associates, Raleigh, NC. June 2007, amended January 2009. Doc ID 6615.
16. *Closure and Post-Closure Plans and Financial Assurance for Continued Operation of the C&D Landfill (.0547 Requirements).* Prepared By: Richardson Smith Gardner & Associates, Raleigh, NC. June 2008, amended January 2009. Doc ID 8491.
17. *Seep Repair and Miscellaneous Site Improvement, Johnston County MSW Landfill.* Prepared By: Richardson Smith Gardner & Associates, Raleigh, NC. April 3, 2009. Doc ID 8551.
18. *CQA Report, Johnston County MSW Landfill, Phase 4A, Cell 3.* Prepared by: G.N. Richardson & Associates, Raleigh, NC. July 2009, revised August 2009. Doc ID 8084.
19. *Closure CQA for C&D Area 1.* Prepared by: Richardson Smith Gardner, Raleigh, NC. July 2011. Doc ID 21740.
20. *Construction Documentation, Landfill Gas Collection System.* Prepared by: SCS Engineers, PC, Charlotte, NC. November 2011, revised December 2011. Doc ID 16068.
21. *Permit Amendment and Permit to Construct Application, Area 2, Cell 2, Johnston County C&D Landfill.* Prepared By: Smith Gardner, Inc., Raleigh, NC. Feb. 2013, amended through May 2015. Doc ID 24160 and 24161.

22. *Permit Amendment Application, Johnston County MSW Landfill, Phase 4A, Cell 3.*
Prepared By: Smith Gardner, Inc., Raleigh, NC. April 2014, amended through May 2015. Doc ID 24165 and 24166.

- End of Section -

ATTACHMENT 2 CONDITIONS OF PERMIT TO CONSTRUCT

PART I: GENERAL FACILITY CONDITIONS

1. The initial, substantial, construction authorized by this Permit to Construct must commence within 18 months from the issuance date of this permit (May 27, 2015). 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 onsite, 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 approved plans and only for those phases of development approved for construction as described in the list of approved documents in Attachment 1.
3. Modifications or revisions of the approved documents or changes during construction of any landfill unit/cell require approval by the Section, and may constitute a permit modification and be subject to a permitting fee.
4. Any modifications in sedimentation and erosion control activities require approval by the Land Quality Section. The Section must be notified of any sedimentation and erosion control modifications.
5. Pursuant to Rule 15A NCAC 13B .0542(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 Division of Air Quality and local fire department must approve the activity prior to burning.

PART II: MUNICIPAL SOLID WASTE LANDFILL CONDITIONS

6. MSW landfill units identified as future phases (Phases 6 through 10) are deemed suitable for preparation of a permit application in accordance with Solid Waste Rule 15A NCAC 13B .1618(a)(1). An application for a permit to construct for each phase, prepared in accordance with applicable statutes and rules in effect on that date, must be submitted to the Section for approval and will be subject to a permitting fee.

PART III: C&D LANDFILL CONDITIONS

7. Pursuant to the NC Solid Waste Management Rules 15A NCAC 13B .0201(c) and (d)(1), this permit approves construction of C&D Landfill Area 2, Cell 2, consisting of approximately 3.9 acres with a projected gross capacity of 462,658 cubic yards of airspace. Cell 2 is a lined cell that piggybacks the east side of closed unlined MSW landfill Phase 3, and also is vertical fill over C&D Area 2, Cell 1.
8. The owner 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.
9. The following requirements must be met prior to operation of C&D Area 2, Cell 2:
 - a. Construction Quality Assurance (CQA) documentation and a certification by the project engineer that the unit was built in accordance with approved plans and the conditions of the permit must be submitted to the Section for review and approval.
 - b. The edge of waste footprint must be identified with permanent physical markers.
 - c. The Permittee must contact the 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. Documentation of financial assurance mechanisms must be submitted to the Section. The financial assurance amount must include closure and post-closure costs including the new phase to receive the permit to operate, in accordance with 15A NCAC 13B .0546.
 - e. The Permittee must obtain a permit to operate for the unit from the Section in accordance with 15A NCAC 13B .0201(d).
 - f. New groundwater monitoring well PM-1 and new landfill gas monitoring wells 7A, 8A, and 10A, and 13 as described in the permit renewal application, Doc ID 24160, must be installed (or repaired), properly developed, and added to the routine monitoring schedule. New site plan drawings showing the location and identification of the new and existing wells must be submitted to the Section.

- End of Section -

ATTACHMENT 3 CONDITIONS OF PERMIT TO OPERATE

PART I: GENERAL FACILITY CONDITIONS

1. This facility is permitted to receive non-hazardous solid waste generated within the State of North Carolina, consistent with local government waste management plans(s) and with

local government approval and as defined in G.S. 130A-290(a) (35), except where prohibited by the North Carolina General Statutes Article 9 of Chapter 130A, and the rules adopted by the Commission for Health Services.

2. The following must not be accepted for disposal: 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).
3. The annual disposal rate for the MSW and C&D units must be no more than 350,000 tons/year which corresponds to approximately 1,122 tons/day, 312 operating days per year. No more than 156,000 tons/year, approximately 500 tons/day, 312 operating days per year, shall be waste generated outside of Johnston County, in accordance with the local government approval issued for this facility.
4. The permittee must not knowingly dispose of solid waste that is generated within the boundaries of a unit of local government that by ordinance:
 - a. Prohibits generators or collectors of solid waste from disposing of that type or form of solid waste.
 - b. Requires generators or collectors of solid waste to recycle that type or form of solid waste.
5. 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 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.
6. The facility must be adequately secured by means of gates, chains, berms, fences, or other security measures approved by the Section to prevent unauthorized entry.
7. Signs must be posted at the entrance to the facility that state that no hazardous waste or liquid waste can be received at the facility; and that provide information on dumping procedures, the hours of operation, the permit number, and other pertinent information. Traffic signs or markers must be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions.
8. Interior roadways must be of all-weather construction and maintained in good condition. Fire lanes must be maintained and passable at all times. Dimensions of the fire lanes must be coordinated with the Fire Marshall having jurisdiction over the site.

9. Permanent physical markers must be maintained to identify the edge of the approved waste disposal boundary. Boundaries must be marked for MSW Phase 3 and 4 (outer boundaries), Phase 4A, Phase 5, and C&D Area 2, Cell 1.
10. The permittee must actively employ a screening program at the facility for detecting and preventing the disposal of excluded or unauthorized waste. 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, or other excluded or unauthorized wastes. The plan must address identification, removal, storage, and final disposition of these wastes.
11. In accordance with 130A-295.6 this landfill may use alternative daily cover (ADC) that has been previously approved at another sanitary landfill in North Carolina. The Section maintains a list of approved ADC and its appropriate use, entitled "Approved Alternative Daily Cover Materials for Use at Sanitary Landfills," which may be referred to, but is not required to be, in determining ADC types and uses. Soil cover must be applied at a minimum of one time per week in accordance with Rule .1626 (2). Soil must be applied more frequently, if needed, to control nuisance, odor or vectors. The use of tarps and auto shredder fluff are approved as alternate cover, reference Doc ID 24165, pdf page 257.
12. The use of different 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 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 included in the list of approved documents in Attachment 1.
13. Open burning of solid waste is prohibited. Fires must be reported to the Regional Waste Management Specialist within 24 hours of the occurrence with a written notification to be submitted within 15 calendar days of the occurrence.
14. Pursuant to Rule 15A NCAC 13B .0542(i)(2) and .1626 (5), 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 Division of Air Quality and local fire department must approve the activity prior to burning.
15. Financial assurance for the MSW and C&D landfill units, 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 and Post-Closure cost estimates and financial instruments must be updated annually pursuant to 15A NCAC 13B .1628.

16. Copies of this permit, the approved plans, and all records required to be maintained in the operating record by the permittee must be maintained at the facility, unless otherwise approved by the Section, and made available to the Section upon request.
17. All forms, reports, maps, plans, and data submitted to the Section must include an electronic (pdf) copy.

Monitoring and Reporting Conditions

18. Groundwater, surface water, and methane monitoring locations must be established and monitored as identified in the approved plans. Any modification to the approved monitoring plan must be submitted to the Section Hydrogeologist for review.
19. Groundwater monitoring wells and surface water sampling locations must be sampled for the constituents listed in the approved monitoring plan, at least semi-annually, according to the approved plan (reference Doc ID 24165, pdf page 320) and the current policies and guidelines of the Section in effect at the time of sampling. Groundwater monitoring for the C&D units must be in accordance with 15A NCAC 13B .1630 through .1633. Assessment monitoring must continue in accordance with the Solid Waste Management Rules and any additional requirements set forth by the Section.
20. Monitoring reports of the analytical results for surface water and 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 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 that also includes surface water sampling locations,
 - 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.
21. The four independent samples which comprise the initial baseline sampling event must be collected from each ground water monitoring well and the report must be submitted to the Section within six months after issuance of the Permit to Operate.
22. Untreated leachate must be sampled and analyzed at least semi-annually concurrently with the ground and surface water sampling. The leachate must be analyzed for all Appendix I constituents, pH, specific conductance, BOD, COD, phosphate, nitrate, and sulfate. Test results must be submitted to the Section along with ground and surface water test results. In the event leachate is recirculated, additional leachate sampling may be required.

23. A readily accessible unobstructed path must be maintained so that monitoring wells and surface water sampling locations are accessible using four-wheel drive vehicles.
24. Each groundwater monitoring well and landfill gas well must be surveyed for location and elevation. Each groundwater monitoring well and landfill gas monitoring well must have an identification plate permanently attached to the well, in accordance with 15A NCAC 2C .0108(o).
25. If a new well is required to be installed, either to add to the network or to replace an existing well, or if a well is required to be abandoned:
 - a. The permittee must obtain approval from the Section for the design, installation, and abandonment of any groundwater or landfill gas monitoring well. A licensed geologist must be present to supervise the installation of groundwater monitoring wells and landfill gas monitoring wells. The exact locations, screened intervals, and nesting of the wells must be established after consultation with the Section Hydrogeologist at the time of well installation.
 - b. Within 30 days of completed construction of each new groundwater and landfill gas monitoring well, a well construction record, well schematic, boring log, field log and notes, and description of well development activities must be submitted to the Section. Form GW-1 must be used for both groundwater and landfill gas wells. The submittal must also include a scaled topographic map, showing the location and identification of new, existing, and abandoned wells and piezometers, and hydraulic conductivity and effective porosity values.
 - c. Hydraulic conductivity and effective porosity values must be established for each screened interval at each monitoring well in order to develop groundwater flow characteristics.
 - d. Within thirty (30) days of the abandonment of any groundwater monitoring well, the well abandonment record (GW-30 form) and any additional information included in the abandonment record must be certified by a Licensed Geologist, and submitted to the Section. A copy of the well abandonment records submitted to the Division of Water Quality, consistent with 15A NCAC 2C .0114(b), must be submitted to the Section.
 - e. Within thirty (30) days of the abandonment of a landfill gas monitoring well, an abandonment record must be submitted to the Section. The boring must be abandoned in accordance with 15A NCAC 2C .0113(d) and be certified by a Licensed Geologist.
26. All landfill gas monitoring must be conducted by properly trained personnel. Methane monitoring must include interior monitoring of onsite buildings. Landfill gas monitoring results must be recorded on forms provided by the Section and be maintained in the facility's operating record.

27. Documentation of well completion, development details, repair, abandonment, and all other pertinent activities associated with each monitoring well and all sampling activities associated with each groundwater well, landfill gas monitoring well, surface water location, and leachate sampling location must be maintained in the facility operating record. Records of all monitoring events and analytical data must be kept as part of the operating record.
28. The leachate collection system must be cleaned and maintained in accordance with 15A NCAC 13B.1626(12)(a), NCGS 130A-295.6 (h)(3), and the approved plan, reference Doc ID 24165, pdf page 265. Remote camera inspections of leachate lines must be conducted upon completion of construction and at least once every five years. Cleaning of leachate collection lines must be conducted as necessary for proper functioning and to address buildup of leachate on the liner. Any blockages encountered must be repaired and reported to the Section. Documentation of leachate line inspections, cleaning and maintenance must be included in the operating record of the facility and provided to the Section upon request.
29. The owner or operator must maintain a record of the amount of solid waste received at the landfill units, compiled on a monthly basis. Scales must be used to weigh the amount of waste received.
30. 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.

Erosion and Sedimentation Control Requirements

31. All earth disturbing and 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, and must be consistent with any other local, state, or federal requirements. 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.
32. 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.
33. 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 402 and 404 of the Clean Water Act, as amended.

PART II: MUNICIPAL SOLID WASTE LANDFILL SPECIFIC CONDITIONS

- 34. The Permit to Operate for MSW Phase 4A, Cell 3 shall expire September 28, 2019. Pursuant to 15A NCAC 13B .0201(g), no later than March 28, 2019, the owner or operator must submit an amendment application prepared in accordance with 15A NCAC 13B .1603(a)(2).
- 35. This permit approves the continued operation of Phase 4A, Cell 3, as well as the onsite environmental management and protection facilities as described in the approved plans. Phase 4A is a lined MSW unit that piggy-backs the unlined MSW units 3 and 4.
- 36. The following table lists the dimensions and details for the lined MSW landfill units, both existing and planned, reference Doc ID 24165, pdf page 29. Gross capacity is the measured volume between the bottom of waste and the top of final cover.

Lined (Subtitle D) MSW Units	Acres	Gross Capacity (cubic yards)	Approximate Service Years ¹
Phase 5	19.2	1,087,199	Inactive
Phase 4A (Cells 1 and 2)	22.0	1,111,382	At capacity
Phase 4A (Cell 3)	7.4	2,205,678	3 – 7.6
Phase 6 ²	21.1	1,402,016	5.8 – 7.8
Phase 7	19.8	1,758,991	5.5 - 8
Phase 8	25.2	1,844,867	5.6 – 8.2
Phase 9	22.5	6,684,914	24.6 – 35.7
Phase 10	17.5	3,137,920	11 – 16.1
Total (Lined)	154.7	19,232,967	58.9 – 84.4

¹Life expectancy as calculated June 2013.

²Applications must be submitted to the Section for review and approval prior to the construction and operation of Phases 6 through 10.

- 37. Gross capacity has been slightly increased due to calculation adjustments. The last approved and advertised Facility Plan identified the total gross capacity of the landfill as 19,900,000 cubic yards, which was combined MSW volume (MSW Phases 4A and Phases 5 – 10) of 18,367,420 cubic yards and C&D volume of 1,487,003 cubic yards. In 2009 and 2015, increased adjustments were 720,189 cubic yards and 100,583 cubic yards, respectively, for combined MSW and C&D capacity, which is a 4.1% increase in total capacity. If a 10% or more increase in total gross landfill capacity is proposed in the future, public notice and local government approval will be required.
- 38. The facility is permitted to co-dispose of wastewater treatment sludge generated within the facility's approved service area, and subject to the terms and procedures of the approved plan.

39. Closure or partial closure of any MSWLF unit must be in accordance with the Closure Plans described in the approved plans and 15A NCAC 13B .1629. Final Closure Plans must be submitted to the Division at least 90 days prior to implementation.
40. The use of leachate recirculation as a leachate management tool requires approval by the Section prior to implementation. Requests for leachate recirculation approval must include a comprehensive management plan developed according to Section guidelines. Plans which are approved by the Section will be included in the list of approved documents in Attachment 1.
41. 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 MSW 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 MSW waste, in tons from scale records, disposed in landfill cells since August 6, 1997 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 III: CONSTRUCTION AND DEMOLITION DEBRIS UNIT SPECIFIC CONDITIONS

42. The Permit to Operate for C&D Area 2, Cell 1 shall expire September 28, 2019. Pursuant to 15A NCAC 13B .0201(g), no later than March 28, 2019, the owner or operator must

submit an amendment application prepared in accordance with 15A NCAC 13B .0533(a)(2).

43. This permit approves the continued operation of Area 2, Cell 1 for the disposal of C&D waste. The following table lists the dimensions and details for the C&D landfill units, both existing and planned, Reference Doc ID 24160, pdf page 30.

C&D Units	Acres	Gross Capacity (cubic yards)	Approximate Service Years ¹
Area 1	16.2	614,472	Inactive
Area 2, Cell 1	11.9	410,675	0.8 – 1.6
Area 2, Cell 2 ²	3.9	462,658	5.8 – 11.6
Total	32.0	1,487,805	6.6 – 13.2

¹Life expectancy as calculated June 2013.

²An application must be submitted to the Section for review and approval prior to the construction and operation of Area 2, Cell 2.

44. The C&DLF unit is permitted to receive construction and demolition waste and land clearing and inert debris as follows:
- a. C&D solid waste as defined in 15A NCAC 13B, Rule .0532(8) means solid waste generated solely from the construction, remodeling, repair, or demolition operations on pavement and buildings or structures. C&D waste does not include municipal and industrial wastes that may be generated by the on-going operations at buildings or structures.
 - b. Inert debris as defined in NCGS 130A-290 (a) (14) means solid waste that consists solely of material such as concrete, brick, concrete block, uncontaminated soil, rock, and gravel.
 - c. Land Clearing Waste as defined in G.S. 130A-290 (a)(15) means solid waste which is generated solely from land clearing activities, limited to stumps, trees, limbs, brush, grass, and other naturally occurring vegetative material.
 - d. Asphalt in accordance with G.S. §130A-294(m).
45. The C&DLF unit must not accept wastes excluded for disposal as specified in 15A NCAC 13B, Rule .0542(e).
46. The leachate collection system within the C&D units must be operated to remove leachate from the landfill in such a way as to ensure that the leachate head on the liner does not exceed one foot under normal operating conditions.
47. The C&D units must be closed in accordance with the approved plan and the requirements of the Section at the time of closure. A final closure plan must be submitted for review at least ninety (90) days prior to closure of any phase of the C&D landfill units.

48. 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 August 24, 2007, 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 IV: POST-CLOSURE SPECIFIC CONDITIONS FOR THE UNLINED MSW LANDFILL UNITS AND CONSTRUCTION AND DEMOLITION DEBRIS UNIT

49. Unlined MSW landfill units Phase 1 and 2 were closed prior to October 1993, and unlined MSW landfill units Phase 3 and 4 were closed in 1999. An enhanced closure cap was also installed over Phases 1 and 2 in 1999. C&D landfill Area 1 is located on top of unlined MSW Phase 4, and was closed in 2011.
50. The integrity and effectiveness of the cap system must be maintained. Maintenance and repairs to the cover must be conducted as necessary to correct the effects of settlement, subsidence, erosion, or other events, and to prevent surface water from impounding over waste, and run-on and run-off from eroding or otherwise damaging the cap system. Mowing and removal of trees on the final cover is required at least once per year.
51. Any post-closure use of the property, including but not limited to, residential, commercial, industrial, agricultural, or recreational use, is subject to review and approval

by the Section and must not disturb the integrity of the cap system, or the function of the monitoring systems. The Section 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.

52. The permittee must conduct groundwater and surface water sampling in accordance with the approved groundwater monitoring plan, corrective action program, and the N.C. Solid Waste Management Rules (.1600 et seq.).
53. Permanent physical markers must be maintained to identify the edge of the waste disposal boundary.

PART V: MISCELLANEOUS SOLID WASTE MANAGEMENT UNIT SPECIFIC CONDITIONS

Yard Waste Processing and Storage Unit

54. Yard Waste must be managed within the facility in the area identified on Drawing S1, Doc ID 24166, pdf page 2. Management of yard waste in areas of the facility other than that referenced above, require written approval of the Section.
55. The yard waste processing area must be operated in accordance with the Rules for Solid Waste Compost Facilities, 15A NCAC 13B .1401 et seq, as applicable, and the approved plan, reference Doc ID 24165, pdf page 259.

Recycling Collection Areas

56. Recycling areas, including the white goods, battery, waste oil, and tire collection areas, must be located in areas of the facility as shown on Drawing S1, Doc ID 24166, pdf page 2, and operated in accordance with the approved plans. The Section must be notified of any planned changes to the locations of these processing or collection areas.

- End of Permit Conditions -