

Review of the C&D Landfill Requirements due July 1, 2008

NC-SWANA

Technical Conference

Asheville, NC

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n.c.denr

North Carolina Department of
Environment and Natural Resources



Division of Waste Management
Solid Waste Section

When are you affected?

- Rules .0531 through .0547 became effective January 1, 2007
 - Site Studies submitted after that date use the new rules
- For Current Operations:
 - Next phase after current Permit to Operate expires
 - July 1, 2008 for existing units, stand-alone and on top of MSW

What has not changed?

- The definition of C&D Waste:
“...solid waste resulting solely from construction, remodeling, repair, or demolition operations on pavement, buildings or other structures, but does not include inert debris, land-clearing debris or yard debris.”

[GS 130A-290(a)(4)]

Items of Immediate Concern

- Amendment Requirements-
.0547(4)(a)-(c) (C&D on Top)
- 5-yr PTO issued following SWS review
- Amendment Permit Fee due
 - \$9000 < 100K tpy, 18,500 > 100 K TPY
 - We will bill you, ensure billing info is included

Items of Future Concern

- For future PTO'S (after 2013) submit Amendment App in accordance with .0535(b)
- Submit 180 days in advance of permit expiration
- Demonstrate approved CAP is working (.0547 (4)(c)
- Pay Amendment Fee

Future Concern- Unit Full

- If the facility does not have additional capacity to continue future operations then they must:
- Implement the approved closure plan within 30-days after final receipt of waste
.0543(c)(5)
- Submit a permit application for new space
.0535(a)(1)

Closure of Existing C&DLF [.0547(1)]

- Existing C&DLFs that will not continue taking waste after **June 30, 2008**, must close in compliance with:
 - Existing Permit Conditions
 - Rule .0510
 - Several Facilities have given notice of planned closure
 - Contact SWS for specific guidance

July 1, 2008 Closure

- Initiate closure by July 30, 2008 and complete within 180 days
- Close in accordance with approved plan or Rule .0510
- PE Certification upon completion of closure
- Record Closure Permit and notify Division
- Closure of unit terminates disposal permit
- Use of facility for future units subject to applicable rules and statutes.

Continued C&DLF Operations *[.0547(2)]*

- Existing C&DLFs that will continue taking waste must submit an application by **July 1, 2008**, containing:
 - Closure/Post-Closure Plan *[.0543]*
 - Financial Assurance *[.0546]*
- Permit Modification Fee, send billing info
 - \$1,500 <110K tpy, \$2500> 100K tpy

.0543 Closure Plans

- Design a cap system to minimize infiltration and erosion
 - Low-permeability layer- Perm $<1 \times 10^{-5}$ cm/sec, 18 inches
 - Erosion control layer , 18 inches
 - Slopes 5% min, 25% max
 - Gas venting or collection system

.0543 Closure Req

- Alternate caps possible
 - Achieve a reduction in infiltration greater than the RMC
 - Erosion Control equal or greater
 - Alternate slopes must be stable, encourage runoff, safe to operate, safe to construct

Closure Plan elements

- Closure must begin 30 days after last receipt of waste
- When 10 acres or greater are within 15 feet of final contour
- Within 1 year of the most recent receipt of waste
- Extensions may be granted

Closure Plan Contents .0543(d)

- Description of cap system and methods and procedures to install it
- Estimate of the largest area of the CDLF requiring the specified cap at any time during the active life
- Estimate of the maximum inventory of waste on site (gross capacity and constructed)
- Closure schedule
- Cost estimate for financial assurance

Post-Closure Criteria .0543(e)

- Conduct 30-years post-closure
- Maintain the integrity and effectiveness of cap
- Monitoring of ground water and surface water
- Maintain the gas monitoring system
- Engineer certification following completion of post closure care period (Do we need to do this incrementally?)

Post-Closure Plan .0543(f)

- Description of monitoring/ maintenance activities and their frequency
- Contact info of responsible party
- Description of planned use of property
- Cost estimate of PC activities

FINANCIAL ASSURANCE

- Must determine the cost of closure and post-closure and corrective action
- Third Party Costs
- Cost to assure the units/acreage that has a PTO

FINANCIAL ASSURANCE

- Costs adjusted annually
- Local Government tests
- Notification and approval to reduce costs
- Maintain throughout the life and for 30 years post-closure

Existing C&DLF over MSWLF *[.0547(4)]*

- C&DLFs over MSWLFs that will continue taking waste must submit an application by **July 1, 2008**, containing:
 - Local Government Approval *[.0536(c)(11)]*
 - Operations Plan *[.0542]*
 - Corrective Action Plan for the MSWLF the C&D is atop *[.1635, .1636, .1637]*
 - Closure/Post-Closure Plan *[.1627]*
 - Financial Assurance *[.1628]*

Local Government Approval [.0536(c)(11)]

- Approval of local board is required
 - Resolution or vote on a motion
 - Copy of resolution or minutes must be submitted
- Hold at least 1 Public Meeting
- Prepare a Plan in accordance with .536(c)(2)
 - Include elements of .0537 (d)(1), (e)(1)-(3)

Local Govt Appr, Cont

- 30- day notice of public meeting
- Legal ad in a newspaper and a news release
 - Include time, place and purpose of meeting
- Submit certified copy of notice with application
- Place documents in a public place such as the library, and state in notice
- Submit tape or transcript and all info from meeting
- Zoning letter

Local Govt Appr, More

- Notify each property owner who shares a common border with the facility
 - Use registered letter, return receipt requested
 - Postmark 30 days prior to the meeting
 - Document to the division
- Notice must contain
 - Description of facility plan, waste elevation, type and amount of waste, other waste management activities and location of entrance.

Operations Plan [.0542]

- Maintain and operate the facility in accordance with an approved plan.
- Plan describes how the facility will operate to maintain compliance with the rules
- Plan consists of drawings and a report

Ops Plan

- 5-year phase of progression drawings
- Consistent with the engineering plan and prepared suitable for use by the operator and compliance
- Illustrate existing conditions, yearly progression, final contours, stormwater control, special waste areas, buffers, stockpiles, and borrow area's

Ops Plan

- Written plan detailing waste acceptance procedures, waste screening plan, waste disposal plan
- CDLF may accept waste from their service area and as it is permitted to receive
 - Discuss current waste acceptance particularly for waste allowed by permit , i.e. c&d like
 - These were MSW units and special allowances were made
- Don't forget ADC

Operations Plans

Sections to Address in the plan include

- Asbestos
- Waste Exclusions
- Cover/ADC
- Spreading
- Compacting
- Wind-Blown litter
- Vector Control
- Fire Control
- Access and Safety
- Sed and Erosion
- Drainage control
- Annual Survey
- Operation Records
- Recordkeeping
- Air Criteria

Closure/Post Closure Requirements

- Final closure and post-closure plans for CDLF over MSW are in accordance with Rules .1629 and .1627
- Financial assurance is posted in accordance with Rule .1628

Closure Post-Closure

- Final cap must have a perm equal to or less than the base liner.
- For the C&D that is the DOCUMENTED closure cap of the MSW landfill
 - Some units got better caps than specified
- Update the construction plans, CQA plans, Specs, etc
- Update Post-Closure Plans
- Update Financial Assurance-Don't forget Corrective Action costs!



In addition to the other requirements that must be met by July 1, 2008 (see Rule .0547 (4)), the application must contain a Corrective Action Plan (CAP) as specified in Rule .0547(4)(c) as follows:

- .1635 – Assessment of Corrective Measures
- .1636 – Selection of Remedy
- .1637 – Implementation of the Corrective Action Program

Summary of 2007 SWANA Meeting

- Discussion of necessary steps prior to submitting a Corrective Action Program (CAP)
- Discussion of the content of the Assessment Corrective Measures Report (ACM)
- Discussion of required actions after ACM completion and approval
- Discussion of the content of the CAP
- Discussion of examples of approved groundwater corrective measures
- Discussion of important deadlines

Steps That Should Already be Taken

- Assessment of Corrective Measures Study (ACM) submitted - .1635
- Public notice of ACM completed or in process - .1635(d)
- Corrective Action Permit Modification Application submitted describing selected remedy - .1636
- Preparation started to submit Corrective Action Program (CAP) - .1637

Corrective Action Plan Recommended Content

- Introduction
- Contaminant Characterization
- Selected and Approved Remedy/Technical Approach
- Groundwater and Surface Water Monitoring
- Evaluation of Effectiveness and Report Submittals
- Contingency Plan
- Schedule
- Financial Assurance
- Completion of Corrective Action
- References, Tables, Figures, and Appendices

A description of recommended content can be found at:

www.wastenotnc.org/swhome/EnvMonitoring/SWCorrectiveMeasuresGuidance.pdf

Submittals Before July 1, 2008

- Corrective Action Permit Modification Application which describes the selected remedy, in accordance with .1636 (guidance document prepared for convenience)
- Corrective Action Program, in accordance with .1637

Important Deadlines

- **July 1, 2008** – Permit Application for the continued operations of the units must be submitted to the Section, including the required Corrective Action Plan (CAP)

For More Information...

Ed Mussler, P.E.

Division of Waste Management

Solid Waste Section

1646 Mail Service Center

Raleigh, NC 27699-1646

Telephone 919.508.8495

Email Ed.Mussler@ncmail.net

Web [*www.wastenotnc.org*](http://www.wastenotnc.org)