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

NC-SWANA Technical Conference
Asheville, NC
April 15, 2007
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 \textit{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 <1x10^-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...

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