UPDATED NSPS (GAS COLLECTION) RULES FOR LANDFILLS

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Presented by:
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Landfill NSPS and EG

- Subparts WWW and Cc Originally Issued on March 12, 1996
- Subpart Cc Followed Requirements of Subpart WWW
- Instead of Revising Subpart WWW and EG Subpart Cc Directly, EPA Updated via Issuance of new Subparts (Subparts XXX and Cf, Respectively)
NSPS/EG Rules

• Proposed July 17, 2014 and August 27, 2015

• Final August 29, 2016

• NSPS Subpart XXX (40 CFR Part 60)
  ➢ Applies to New, Modified, or Reconstructed Landfills on or after July 17, 2014

• EG Subpart Cf (40 CFR Part 60)
  ➢ Replacing Subpart WWW & Cc
  ➢ Applies to Existing Landfills Accepted Waste after November 8, 1987 and Began Construction, Reconstruction or Modification before July 17, 2014

• NSPS and EG have same Technical Requirements
Landfill NESHAP Schedule

- 40 CFR Part 63, Subpart AAAA Currently Requires Landfills to Comply with Existing Rules (NSPS Subpart WWW and EG Subpart Cc)

- Minor Changes Necessary to Clarify Language and Requirements (i.e. updating direct references to WWW and Cc)

- EPA’s Schedule to Revise Subpart AAAA Uncertain
EG Subpart Cf Schedule

• EPA will Develop Federal Plan:
  ➢ Federal Plan will almost Certainly have Same Technical Requirements as Subpart Cf
  ➢ Federal Plan due by November 2017

• Each State/Delegated Authority May:
  (1) Prepare a “Local Plan” that conforms to Subpart Cf, OR
  (2) Adopt the (yet to be Issued) Federal Plan

• Local/State Plans:
  ➢ Until May 29, 2017 to Submit Plan to US EPA for Approval
  ➢ EPA has 4 Months to Review the Plan
  ➢ If Needed, 2 Months to Address EPA Comments and Revise Plan
  ➢ Effective no later than November 2017?
Major Provisions of Rule

- Landfill Sizes that Trigger Rule Provisions
  - Remain the same - 2.5 million Mg and m³

- NMOC Emissions Threshold to Control LFG
  - Reduced from 50 Mg/year down to 34 Mg/year
  - Closed Landfills Remain at 50 Mg/year (Subcategory)
Electronic Reporting

• Requiring Electronic Reporting
  - EPA Central Data Exchange (CDX)
  - Compliance & Emissions Data Reporting Interface (CEDRI)

• Following Reports Required:
  - NMOC Emissions Rate Reports
  - Annual Reports
  - Performance Tests
  - Tier 4 (Will Discuss)
  - Liquids Recirculation/Additions Data

Almost Always Very Difficult to Get Going
Electronic Reporting (cont.)

• Only if form available; otherwise submit to EPA using normal route
• Once form available for 90 days, all subsequent reports must be submitted electronically
• Any Source Test Results must be Reported Electronically within 60 Days of Testing
Reporting – Liquids Practices

- EPA did not Create Category for Landfills that add Liquids
- But….if Over Capacity Threshold Must Report Data
- Collect Data (Annual Reporting Online)
  - Volume Recirculated
  - Quantity Based Records or Engineering Estimates
  - Surface Area and Waste in Mg in Recirculation Area
  - Waste Disposed of Annually in Recirculation Areas
  - First Report Initial Year and Last 10 Years
  - Due 13 Months After Rule Finalized
Tier 4 Demonstration

• Tier 1, 2, 3 Remain the Same to Calculate NMOC Emissions

• Sites Between 34 - 50 Mg/yr Eligible for new Tier 4
   Can Skip from Tier 2 to Tier 4
   Cannot go back to Earlier Tiers After Tier 4

So what is it?
Tier 4 Demonstration

- Surface Scan (30-Meter Intervals/Penetrations)
- Must Perform 4 Quarterly Readings
- No Exceedances Above 500 ppm
- Continue to Report NMOC Emissions Annually
- Wind Speed Limits/Shield Required
- Can Leave Existing GCCS On (with Demonstration)
- Requires Notification of Testing/Electronic Reporting
- Requires Meticulous Recordkeeping
- If Fail Install GCCS 30 Months After NMOC Report

$>34 \text{ Mg/yr}$
Closed Landfill Subcategory

- In EG Rule, MSW Landfills Closed by September 27, 2017 (13 Months after EG Rules Published) Continue with 50 Mg/yr NMOC threshold
  - Closed Landfill Must Have Submitted NSPS Closure Report as Specified by 40 CFR 60.38(f)
  - Not Available to NSPS Landfills
Closed Landfill Subcategory

Implementation Issues and Next Steps?

- Ensure Existing Closed Landfills that are not Already Subject to the Rule are not Pulled into the New Rule
- Need to Ensure Current Closed Landfills have proper Documentation to Support Exemption
- NMOC Reports/Closure Documentation?
GCCS Design Plan

• GCCS Design Plans Still Required
  - Now Requires only Notification and Signature Page Certifying it when Completed
  - If no Contact in 90 Days or told that no Review Needed Owner Continues at Own Risk

• When Must GCCS Design Plans be Updated?
  - 90 Days of Expanding GCCS to Area not Previously Covered in Plan
  - Prior to Expanding GCCS in a way not Included in Plan

• Flexibilities May Require Approval/Updates
GCCS Design Plan

Implementation Issues and Next Steps?

• Since “at Own Risk” Still Need Approvals?
• Know What to File if Have an Existing GCCS
• What about Previously Approved Flexibilities under NSPS?
Quarterly Surface Scans

- Sites with Required Gas Systems
  - Still Quarterly – 500 ppm
  - Must Monitor Penetrations
  - No Integrated Sampling/Numerical Wind Limits
  - Must Report Longitude/Latitude of Each Exceedance
  - Instrument Accuracy of at least +/- 4 Meters
  - Coordinates must be in Decimal Degrees with at least Five Decimal Places
  - Follow-Up Requirements for Exceedances Same
Surface Scan Details

Implementation Issues and Next Steps if Required to do Scans?

- New Monitoring Equipment for GPS
- Additional Resources Required for Monitoring
- Know Definition of Penetration
  - Includes Wellheads, Leachate Risers, Gas System Penetrations
  - Includes Distressed Plants, Cracks, Seeps
  - Does NOT Include: Litter Fencing, Flags, Signs, Trees, Utility Poles
Wellhead Standards

• Removal of the Operation Standards for Oxygen/Nitrogen
  ➢ Monthly Wellhead Monitoring/Recordkeeping Still Required
  ➢ Negative Pressure and Temperature Requirements Maintained
  ➢ Removal of the Corrective Action for Exceedances of Oxygen
Wellhead Standards

Implementation Issues and Next Steps

• Generally Little Change
• Keep Monitoring
• In Most Every Case Adjust as Needed
• Possibly Allow for Collection from Older Areas or Leachate Risers
Alternative Timelines

• Well Corrections for Temperature and Pressure
  - Rules say 5 Days for Initial Adjustment and 15 Days to get into Operating Range

• New Tiered System for Alternative Timeframes
  - 15 Days (Standard In Rule)
  - Between 15-60 Days
  - Between 60-120 Days
  - 120 Days

• Be Aware of Prior Flexibilities in GCCS Design Plans
Alternative Timelines

• 5/15-Day Adjustments (Standard)

• Up to 60 Days Allowed – Root Cause Analysis
  ➢ Kept On-Site, not Submitted or Approved
  ➢ Analysis Investigates to Find Cause
  ➢ Document the Corrective Action Also

• >60 but <120 Days Implementation Schedule Required
  ➢ Notification Required within 75 Days
  ➢ No Approval Needed but Include in Semi-Annual Report
    (Schedule, Root Cause Analysis, Document Corrective Action)

• >120 Days
  ➢ Submit Root Cause Analysis and Timeline within 75 Days
  ➢ Assume Proceed After Submittal – Don’t Wait on Approval
  ➢ Document that and Corrective Action in Next Semi-Annual Report
LFG Treatment

• Defined Treatment System: System that Filters, De-Waters and Compresses Landfill Gas for Sale or Beneficial Use

• Expanded Types of Beneficial Use
  ➢ Vehicle Fuels, high-BTU for Pipeline Injection, Raw Material for Chemical Manufacturing

• Clarified Beneficial End-Use Dictates Level of Treatment

• Clarified End-User of Treated Gas not Subject to Rule; end User must Follow Applicable Rules (i.e., ZZZZ, JJJJ)

• Prepare Site-Specific Treatment Monitoring Plan
Treatment Implementation Issues

• If Landfill Clarify Responsibilities
• Current Treatment Exemption Conversion (Timing)
• Set Parameters – Current Monitoring?
Capping/Removing GCCS

• Alternative Criteria for Capping/Removal
  - Landfill is Closed
  - GCCS has Operated for at Least 15 years; or
  - Demonstrate Unable to Operate due to Declining Flows
  - Must show NMOC Emissions < 34 Mg/year (or 50) for 3 Consecutive Sampling Events

• Also.....
  - For 1% Rule, if Closed and Separate, Actual Gas Recovery and Tier 2 Data Can be used for Estimates
Startup, Shutdown, and Malfunction

- Standards apply at all Times, Including Periods of Startup Shutdown and Malfunction (SSM)
- Removed 5-day and 1-hour Downtime Limitations
- Site must Close Valves/Stop Gas Mover within 1-hour of Shutdown (Work Practice Standard)
- Sites must Comply with Work Practice Standards and SSM Recordkeeping/Reporting
- Specific SSM Criteria for Required Monitoring Equipment (e.g., Flow and Temperature)
SSM Implementation Issues

Implementation Issues?

• Without 1-hour and 5-day limits, is Unlimited GCCS Downtime Allowed?

• Can State/Local Agencies Impose their Own Limits in the Absence of any in Federal Rules?

• Will EPA be Updating Landfill NESHAPs Rule to Accommodate this Change in NSPS/EG Rules?

• Do SSM Plans Need Updating? What Needs to be Included in SSM Reports?

• Some Follow-Up with EPA Necessary to Clarify some of these Issues
First Steps?

- Verify Whether Landfill is “New” and Subject to NSPS XXX
- If Closed Check Documentation
- If NSPS Site - Resubmit Design Capacity and NMOC Reports (Tier 1 and Tier 2) by November 28, 2016
- Tier 2 Report Greater than 34 Mg/yr? Retest?
- Consider Tier 3?
- If under 50 Mg/yr Consider Surface Emissions Alternative (new Tier 4)?
If Not “New” - Timing

- EG Rules Cover “Existing” Sites
- Local “EG” Rules (Incorporated by Reference)
- Late 2020 before Gas System Required at Earliest?
- Until then Current NSPS (WWW)/EG (Cc)
  - State/Local may ask for Extension
  - New NMOC/Design Capacity Reports
  - Go from there!
Ongoing Issues

• EPA has so far Agreed to some Limited Clarifying Guidance, but likely through Enforcement

• Feasibility of Tier 4

• NESHAPs (SSM) remains applicable for current NSPS and EG sites
  - EPA says that XXX and WWW could be in effect for same site
  - Not on current EPA schedule for revision

• Submittal and approval of GCCS Design Plans and “At Risk” Issue

• “Wet” Landfills: no Clear Definition, Triggered just with Design Capacity Exceedance, and 10 Years of Past Data
QUESTIONS?

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