NSPS for Landfills
Proposed Rules for New and Existing Landfills

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Outline of Presentation

• Background on Rulemaking
• Applicability
• Schedule
• Summary of Key Proposed Changes
Background on Rulemaking

• **July 17, 2014:** Proposed NSPS Subpart XXX published in Federal Register

• **August 27, 2015:** Supplemental NSPS Subpart XXX and Proposed EG Subpart Cf published in Federal Register
What Rule Applies to My Landfill?

• NSPS Subpart XXX (40 CFR Part 60)
  – Landfills that began construction, modification, or reconstruction *after* July 17, 2014

• EG Subpart Cf (40 CFR Part 60)
  – Existing landfills that accepted waste after 11/08/1987 and began construction, modification, or reconstruction *before* July 17, 2014
When Will the Rules Apply?

- Anticipate final NSPS/EG rules *July 2016*
- NSPS Subpart XXX
  - When issued will be final and effective
- EG Subpart Cf
  - States will have 9 months to submit Plans
  - EPA then has 4 months to review and approve
Key Changes and Clarifications

- Threshold for Installing Controls
- Optional Tier 4 Demonstration
- Routine Surface Emission Monitoring
- Wellhead Operating Standards
- Capping/Removing GCCS
- Startup, Shutdown, and Malfunction
- Clarifications: GCCS Design Plan Updates, LFG Treatment Definition, Alternative Timelines
Thresholds for Installing Controls

- Design capacity threshold
  - Remains the same: 2.5 million Mg and m³
- NMOC emission threshold
  - Reduced from 50 Mg/yr to 34 Mg/yr
  - Closed landfills remain at 50 Mg/yr (subcategory)
- Time period for GCCS installation remains at 30 months after exceeding the threshold
- Best System of Emission Reduction (BSER) remains the same
  - Open flares are still allowed
Closed Landfill Subcategory

- Landfills closed on or before August 27, 2015 continue to be subject to 50 Mg/yr NMOC threshold
  - Closed landfill is defined as a landfill that has submitted a closure report as specified by 40 CFR 60.38(f)
Optional Tier 4 Demonstration

• Surface Emissions Monitoring (SEM) demonstration
  – 4 consecutive quarters below 500 ppmv **does not** trigger GCCS install
  – Semi-annual testing following quarterly testing
  – Wind speed requirements: Average of less than 5 mph and/or less than 10 mph instantaneous speed

• **One reading above 500 ppmv requires GCCS install**

• Can’t use other Tier methods if Tier 4 fails
Surface Emission Monitoring

• Proposes all penetrations and open areas must be monitored
• GPS technologies
  – Requires latitude and longitude coordinates
  – Instrument accuracy of at least +/- 3 meters
  – Coordinates must be in decimal degrees with at least five decimal places
Wellhead Operating Standards

- Criteria for oxygen and temperature have been removed

- Monthly monitoring still required for oxygen, temperature, and pressure
  - Pressure is the only parameter with a limit (maintain negative pressure) and which can trigger an exceedance
Capping/Removing GCCS

- Alternative criteria for capping/removal
  - Landfill is closed or an area of an active landfill is closed
  - GCCS has been in operation for at least 15 years or demonstrate unable to operate due to declining flow
  - Demonstrate 4 consecutive SEM quarters below 500 ppmv
Startup, Shutdown, & Malfunction (SSM)

- The rule will now apply at all times, including SSM
- Propose to remove 5-day GCCS and 1-hour control device downtime limitations
- Still required to control free venting landfill gas to less than 1 hour
  - Close valves/stop gas mover within 1 hour
- Require landfills to estimate excess NMOC emissions when not operating GCCS
GCCS Design Plan

• Require updates to GCCS Design Plan:
  – Within 90 days of expanding operations into an area not covered by previously approved plan
  – Prior to installing or expanding the GCCS in a manner other than one described in a previously approved design plan
LFG Treatment System

• **Definition:** System that *filters, de-waters, and compresses* landfill gas for sale or beneficial end use of the gas

• Beneficial use not limited to stationary fuel combustion
  – Vehicle fuels, high BTU for pipeline injection, raw material for chemical manufacturing

• Site-specific monitoring plan required
  – Monitoring parameters, methods, frequency, and operating ranges
Alternative Timelines

• Alternative timeline requests required when:
  – Cannot restore negative pressure within 15 days
  – Unable to or do not plan to expand GCCS within 120 days

• No schedule currently proposed
  – Want to ensure sufficient time to diagnose and complete corrective action
Review

• NSPS Subpart XXX
  – New landfills or existing landfills expanded after July 17, 2014
  – Requirements immediately apply when final rule is issued

• EG Subpart Cf
  – Existing landfills constructed or modified before July 17, 2014
  – States submit plan for approval by EPA before requirements apply
Review

• Expect NSPS and EG rules to be very similar

• Biggest Proposed Changes
  – NMOC emission threshold for GCCS installation lowered to 34 Mg/yr
    • Closed landfills remain at 50 Mg/yr threshold
  – Removal of SSM time duration (5-day GCCS downtime and 1-hour control device downtime)
  – Removal of oxygen and temperature wellhead limits
  – Monitoring all cover penetrations during SEM
  – LFG Treatment System requirements
Questions

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