



NSPS for Landfills

Proposed Rules for New and Existing Landfills

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Presented By:

Stephanie Taylor

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

- *Contact:*

Stephanie Taylor

SCS Engineers

7311 West 130th Street, Suite 100

Overland Park, KS 66213

913-681-0030

STaylor@scsengineers.com