



Regulatory Update: Air/GHG Regulations

Pat Sullivan

SWANA Western Regional

San Luis Obispo, CA

April 2, 2016

Agenda

- Background on Rulemaking
- Schedule
- Applicability
- Summary of Key Issues
- Recent/Next Steps
- Other Regulations

NSPS/EG Proposals

- August 27, 2015 published in Federal Register
- Expect NSPS and EG to have same requirements
 - Supplemental NSPS Subpart XXX (40 CFR Part 60)
 - Applies to New, Modified or Reconstructed landfills **after** July 17, 2014
 - Industry comments previously provided September 2014
 - Proposed EG Subpart Cf (40 CFR Part 60)
 - Replacing Subpart WWW & Cc
 - Applies to existing landfills accepted waste after 11-8-1987 and began construction, reconstruction or modification **before** July 17, 2014

Schedule

- 60-day comment period ended October 26, 2015
 - SWANA/NW&RA joint comments submitted
- Anticipate final NSPS/EG rule July 2016
- NSPS XXX when issued will be final and effective
- For EG Cf, States have 9 months to submit Plans
- EPA then has 4 months to review and approve
- Waiting on EPA to propose Federal Plan
- Waiting on EPA to revise Subpart AAAA (Landfill NESHAPs)

Thresholds for Installing Controls

- Design capacity threshold
 - Remain the same—2.5 million Mg and m³
- NMOC emission threshold
 - Reduced from 50 Mg/year down to **34 Mg/year**
 - Closed landfills remain at 50 Mg/year (Subcategory)
- ***Impact:***
 - Results in active landfills triggering the requirement to install and operate a GCCS earlier
 - Extends operation of the GCCS
 - Unsure of number of landfills impacted since landfills can test out with Tier 2 or using surface emission monitoring alternative (new Tier 4)

Closed Landfill Subcategory

- MSW Landfills closed on or before August 27, 2015 continue to be subject to 50 Mg/yr NMOC threshold
 - Closed landfill defined as landfill that has submitted a closure report as specified by 40 CFR 60.38(f)
 - Comments on alternative approach to expand closed subcategory to include landfills that close within 13 months after publication of final EG
- ***Impact:***
 - Ensures 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

No Change to BSER

- BSER=Best System of Emission Reduction
 - Well designed and operated GCCS
 - Open/Non-enclosed flares
- BMP's (e.g., well dewatering, well bore seals, organics diversion, etc.)
 - Not considered BSER
 - BMPs are not a one size fits all
 - BMPs are encouraged on a site level use where feasible
- ***Impact:***
 - *Industry supports BSER remaining the same*

Wellhead Standards

- Monthly wellhead monitoring/recordkeeping still required
 - Maintain negative pressure
- ***Impact:***
 - Enhances landfill gas collection with operational flexibility
 - Incentive for earlier gas collection
 - Major reduction in recordkeeping, corrective action, remonitoring, etc.

GCCS Design Plan

- GCCS design plan
 - Revise within 90 days of expanding operations to an area not covered by previously approved plan
 - Prior to installing or expanding the gas collection system in a manner other than one described in a previously approved design plan
 - Requesting comment on third party certification program to supplement or replace EPA/State review & approval
- ***Impact:***
 - Creates uncertainty for plans that are not already approved and that are not approved when amended
 - A third party certification process will also create additional burden – both Agency and industry
 - Potential conflict with PE certification

Tier 4 Demonstration (optional)

- Surface emissions monitoring (SEM) demonstration - active & closed
 - 4 consecutive quarters below 500 ppmv does not trigger GCCS install; Semi-annual testing thereafter
 - Monitor entire surface at no more than 30-meter interval path; visual observations indicate elevated concentrations of landfill gas
 - Proposes **All** cover penetrations & open areas
 - Proposes wind speed requirements
 - Wind speed determined by an onsite anemometer

Tier 4 Demonstration (cont.)

- ***Impact:***

- Allows any existing landfill to demonstrate emissions below NMOC threshold
- Concerns regarding the ability to meet the wind requirements
- Readings at or above 500 ppmv requires GCCS installation
- Can NOT use Tier 1, 2 or 3 if Tier 4 fails

Capping/Removing GCCS

- Alternative Criteria for Capping/Removal
 - Landfill is closed or an area of an active landfill is closed
 - GCCS has operated for at least 15 years or demonstrate unable to operate due to declining flows
 - Demonstrate 4 consecutive SEM quarters below 500 ppmv
 - 1% criteria not changed
- ***Impact:***
 - Issues with implementation of approach
 - Concept details demonstration to allow operational flexibility to address low producing sections

SEM – Routine Events

- Proposes all penetrations and open areas must be monitored
- GPS technologies
 - Requiring latitude and longitude coordinates
 - Instrument accuracy of at least +/- 3 meters
 - Coordinates must be in decimal degrees with at least five decimal place
- ***Impact:***
 - New monitoring equipment for GPS
 - Additional resources required for monitoring
 - Confusion about what is a penetration/open areas

LFG Treatment

- Treatment System Defined
 - System that filters, de-waters and compresses landfill gas for sale or beneficial end use of the gas
- Beneficial use expanded; not limited to stationary fuel combustion devices.
 - Vehicle fuels, high BTU for pipeline injection, raw material for chemical manufacturing
- Site-specific treatment monitoring plan required
 - Monitoring parameters, methods, frequency and operating ranges based on manufacturers recommendations or engineering analysis for intended use of treated gas

LFG Treatment (cont.)

- ***Impact:***

- Beneficial use dictates level of treatment; reflected in site-specific Monitoring Plan
- Site-specific Monitoring Plan requires agency approval via Design Plan
- End users of treated gas must follow applicable rules (i.e., JJJJ, ZZZZ)
- Treated gas is not subject to landfill NSPS/EG control requirements for the end user's equipment

Household Waste/ Segregated Yard Waste

- “Household Waste” and “Segregated Yard Waste” – clarification proposed in definition
 - Original definition was not intended to apply to landfills that accept only segregated yard waste or a combination of segregated yard waste and non-household waste such as construction and demolition waste
- ***Impact:***
 - The clarification in the definition ensures the NSPS/EG does not unintentionally apply to C&D landfills that accept yard or C&D wastes that originated from a household

Electronic Reporting

- Propose e-reporting for performance tests, NMOC reports and annual reports
 - Will apply to methods/reports supported by the Electronic Reporting Tool (ERT)
 - Maintain only electronic copies of the records to satisfy federal recordkeeping requirements
- ***Impact:***
 - Requires EPA to develop new procedures and tools to support electronic submittals
 - Requires sites to periodically monitor ERT website for new reporting tools/requirements
 - Emission factors updated periodically

Alternative Timelines

- EPA seeks comment on submitting corrective action timeline requests where:
 - Cannot restore negative pressure within 15 days and
 - Unable to or do not plan to expand gas collection within 120 days
- No schedule proposed in rule due to site specific conditions
 - Want to ensure sufficient time to diagnose and complete corrective action

Startup Shutdown and Malfunction (SSM)

- Consistent with Sierra Club v. EPA, EPA is proposing standards apply at all times, including periods of startup shutdown and malfunction.
 - Propose to remove 5-day and 1-hour downtime limitations
 - Close valves/stop gas mover within 1-hour of shutdown
- MSW Landfills are a “continuous biological process that cannot be stopped or restarted”; *therefore*,
- Focus on malfunction of the GCCS and monitoring equipment
- Recent NSPS/NESHAPs rulemakings indicate EPA has tailored SSM to address continuous operations (i.e., alternative emission limits, work practice standards)

Clarification/Comments

- EPA seeking comments on the following topics:
 - Organics Diversion
 - Wet Landfills
 - Monitoring wellhead flow rate
 - Alternative Timeline Notification
 - SEM California LMR approach (25 foot spacing and integrated sampling at 25 ppmv)
- ***Impact:***
 - The EPA will have the ability to add additional provisions into the final version of the rule based on the information submitted as a part of these requests, depriving the industry of the ability to comment directly on any new rule language. This makes the industry responses to these requests for comment critical in terms of helping to properly frame EPA's rulemaking process.

Recent/Next Steps

- Additional comments submitted to EPA on January 22, 2016
 - Wellhead criteria, Tier 4, closed subcategory, Design Plans, treatment definition/plans, organics diversion (collection efficiency), wet landfills, effective dates/timelines
- Working with EPA as they review/address comments from other stakeholders
- Be prepared for rule issuance July 2016
 - Go back and check records/assess status
- Communicate with EPA on implementation issues

Other Regulations

- Federal ozone standard
 - Changed from 75 to 70 ppb for 8-hour
- Federal GHG Permitting
 - Supreme Court decision on Tailoring Rule
 - Biogenic issue in flux
- Federal GHG Reporting
 - Minor changes to 40 CFR Part 98
- AB 32 Scoping Plan
 - Organics diversion, additional controls on LFG, restrictions on refrigerants and foams, recycling

Other Regulations (cont.)

- Portable Engines
 - CAPCOA guidance limiting PERP
- Composting
 - Only SCAQMD/SJVAPCD with rules, but others in development
 - Permitting and BACT in other districts
- CEQA for GHG
 - CAPCOA guidance
 - District guidances (e.g., BAAQMD)
 - Inconsistency in significance levels

Contact Information

- Pat Sullivan
 - psullivan@scsengineers.com
 - (916) 361-1297