

New NSPS/EG Regulations Highlights & Impacts on Landfill Industry



April 21, 2016

Changes to NSPS/EG Rules Timeline

July 17, 2014

1. Subpart XXX - Proposed NSPS for MSW landfills
2. Advanced Notice of Proposed Rulemaking requesting public input

August 27, 2015

1. Subpart XXX - Supplemental Proposed NSPS
2. Subpart Cf - Proposed EG & Compliance Times for MSW landfills

July 15, 2016

(Not yet Published in Federal Register)

1. Final NSPS Subpart XXX
2. Final NSPS Subpart Cf - EG & Compliance Times for MSW landfills

Applicability of Proposed Subpart XXX

1. Applies to MSW landfills that commenced construction, reconstruction, or modification after July 17, 2014
2. Landfills subject to Subpart XXX will need to implement any changes required no later than 60 days after rule is published in FR

What Does Modification Mean?

Defined as an ↑ in the permitted volume design capacity of the landfill by either lateral or vertical expansion based on its permitted design capacity as of July 17, 2014

Applicability of Subpart Cf

1. Replaces both the existing Subpart WWW and Subpart Cc
2. Applies to existing MSW landfills that accepted waste after Nov 8, 1987 & commenced construction, reconstruction, or modification on or before Jul 17, 2014
3. Applies to all existing landfills that have not been expanded or were not newly constructed after July 17, 2014
4. Implemented at state level and states have 9 months to develop a state plan
5. State plans to be approved by EPA within 4 months, then published in FR

Road Map for New Rules

1. Applicability of NSPS/EG rules
2. Thresholds for Installing Controls
3. GCCS Design Plan Updates
4. Wellhead Operational Standards
5. Surface Monitoring
6. SSM
7. Electronic Reporting

Thresholds For Installing Controls

- Design capacity: 2.5 MM Mg & 2.5 MM m³
- NMOC ER threshold for installing/removing GCCS=34 Mg/yr
- Landfills exceeding the above must install & start up a GCCS < 30 months from reaching the NMOC ER of 34 Mg

Mg – megagram or metric ton

GCCS Design Plan

The new NSPS & EG Regulations still require preparation of both initial & revised design plan(s)

GCCS Design Plan Updates Timeline

- Administrator has 90 days to decide whether a submitted design plan should be submitted for review
- If the Administrator indicates that review is not required or doesn't respond within 90 days, the plan can be continued to be implemented (at own risk)

GCCS Design Plan Updates

Revised Design Plan Timeline

- < 90 days of expanding operations to an area not covered by the previously approved design plan
- Before installing/expanding the GCCS in a manner inconsistent with the previous design plan

Wellhead Operational Standards

N₂ & O₂

- No corrective actions for exceedances of specified operational standards
- However, must continue to monitor monthly so that the GCSS can be adjusted accordingly
- Maintain records of all monthly readings

Wellhead Operational Standards

Portable Gas Analyzers – O₂

A Portable Gas Analyzer is allowed, provided that it's calibrated & meets all Method 3A QA/QC requirements

Wellhead Operational Standards

Pressure & Temperature

- No change in operational standards
- Pressure < 0
- Temperature < 131 °F

Wellhead Corrective Actions

Pressure & Temperature

- If $P \geq 0$ and/or if $T \geq 131$ °F, must initiate corrective action ≤ 5 days
- In either case if the problem cannot be fixed ≤ 15 days, the appropriate corrective action must be determined
- Use a “root cause analysis” & correct the exceedance as soon as practicable
- Correct ≤ 60 days after the initial exceedance

Wellhead Corrective Actions

Extended Timeline for Pressure or Temperature

- For corrective actions > 60 days to fully implement, develop a schedule for the corrective action ≤ 120 days
- Notify Administrator of any corrective action ≥ 60 days ≤ 75 days
- Describe the root cause analysis, corrective action analysis & implementation schedule in the annual report
- If the corrective action is expected ≥ 120 days, submit the corrective action plan & implementation timeline for approval ≤ 75 days

Surface Monitoring

Where & When

- Monitor all cover penetrations & openings where there is waste & GCCS is required to be in place & operating
- Monitor every $\frac{1}{4}$ at the specified intervals & where visual observations indicate elevated LFG (e.g., distressed vegetation & cracks/seeps in the cover & all cover penetrations)
- Cover penetrations include wellheads but do not include other items (e.g., survey stakes, fencing, flags, signs, trees, or utility poles)

Surface Monitoring Location Accuracy

- Report the latitude & longitude of each exceedance (≥ 500 ppm CH₄) with instrument accuracy of at least 4 meters

Tier 4 Demonstration

NMOC Emission Rate

- Tiers 1, 2, and 3 remain the same from NSPS WWW
- Tier 4 is an actual site-specific surface methane emissions demonstration to show methane emissions < 34 Mg/yr
 - 4 consecutive quarterly CH₄ emissions scans < 500 ppm
 - Limitations on wind speed, must be monitored by on-site anemometer
 - Sampling probe ≤ 5 cm (~ 2 in.) from landfill surface
 - Notify agency 30 days before performing Tier 4

Startup, Shutdown, Malfunction (SSM)

- XXX & Cf apply at all times (includes SSM periods)
- EPA is currently working on an “alternative” standard during SSM events
 - If the GCCS is not operating, the system must be shut down; all valves that could contribute to venting must be closed ≤ 1 hr of the GCCS not operating
 - Keep & submit records of all periods when the GCCS doesn't operate

Electronic Reporting CDX & CEDRI

- EPA's Central Data Exchange (CDX) using the Compliance & Emissions Data Reporting Interface (CEDRI)
- Submit electronic copies of:
 - Certain required performance test reports
 - NMOC emission rate reports
 - Annual reports
 - Tier 4 emission rate reports
 - Wet landfilling practices

Electronic Reporting References

- Electronic reports only apply to those performance tests conducted using test methods that are supported by the Electronic Reporting Tool (ERT)
- A list of the pollutants and test methods supported by the ERT is available at: ww3.epa.gov/ttn/chief/ert/ert_info.html
- When the EPA adds new methods to the ERT, a notice will be sent out through the Clearinghouse for Inventories and Emissions Factors (CHIEF) Listserv: <https://www.epa.gov/air-emissions-inventories/emissions-inventory-listservs>
- Sites are encouraged to check the ERT Website regularly for up-to-date information on methods supported by the ERT

Projected Road Map Going Forward

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| Jul 2016 | Subpart XXX in effect once promulgated, EG ready for state implementation |
| Apr 2017 | Deadline for states to submit state plans to implement Subpart Cf (9 mo after XXX becomes active) |
| Aug 2017 | Deadline for EPA to approve states plan (4 mo after states deadline) |

Questions?

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