



Image courtesy of SCS Engineers.

Where Do the New Landfill Air Regulations Stand?

A look at the confusion stemming from regulatory uncertainty of new rules limiting air emissions from municipal solid waste landfills.

In late summer 2016, the U.S. Environmental Protection Agency (EPA) published updated regulations limiting air emissions from municipal solid waste (MSW) landfills, specifically, revised New Source Performance Standards (NSPS) for new landfills under 40 CFR 60, Subpart XXX, and Emission Guidelines (EG) for existing landfills under 40 CFR 60, Subpart Cf. However, less than a year later, the agency switched from having formally issued these wide-ranging new rules, affecting over 1,000 landfills nationally, to imposing a legal stay on the rules in order to review an administrative petition submitted by the landfill industry. The rules' course changed again on August 29, 2017, when the stay expired without substantial comment by EPA regarding the reconsideration issues that dictated the stay. With the stay now lifted, these rules are again legally in-effect; yet significant questions remain. What is more, the earlier versions of the same

NSPS/EG rules (Subparts WWW and Cc) are also still in effect, further compounding the confusion surrounding applicability, compliance deadlines, and requirements (see Table 1 for cursory comparison between the old and new rules).

These uncertainties can confound compliance planning by state and local regulators, as well as by the solid waste industry, a large and ubiquitous segment of the U.S. economy. How can landfill owners work to maintain compliance under the current conditions of significant regulatory uncertainty, and how can federal, state and/or local regulators implement the new rules?

Impact on Landfill Owners and Regulators

In the course of their work, responsible landfill owners pursue a variety of challenging goals. Principal obligations include

Table 1. A comparison of the old and new landfill rules—Primary provisions.*

Provision in Rule	Previous NSPS (Subpart WWW) and EG (Subpart Cc)	New NSPS (Subpart XXX) and EG (Subpart Cf)
Rule Applicability Trigger	2.5 million Mg waste mass and 2.5 million m ³ waste volume	No change
Landfill Gas Control Trigger—NMOC emissions threshold (for active MSW landfills)	50 Mg/yr	34 Mg/yr
Landfill Gas Control Trigger—NMOC emissions threshold (for closed MSW landfills)	50 Mg/yr	No change
Gas wellhead monitoring parameters	Temperature, pressure, oxygen	Temperature, pressure (Note that oxygen must be recorded but is no longer subject to numeric limits or reporting)
Frequency of monitoring the required gas wellhead parameters	Monthly	No change
“Wet” Landfills (Leachate or other specified liquids are recirculated)	Not addressed	No stated requirements, except recirculated leachate must be recorded back 10 years
Surface Emission Monitoring of Methane	Quarterly	Quarterly, with increased requirements including additional cover penetration monitoring and GPS location marking of exceedances with ±4 meter accuracy. These additional requirements add significant time and expense for the landfill
Landfill Gas Treatment (processing of LFG for subsequent sale for beneficial use)—Definition	Unclear	Clarified: compression, dewatering, and filtration, (states may require monitoring plan)
Reporting submission format including test reports	Unspecified	Electronic as specified (some submittals not currently supported)

Note: *Not an exhaustive listing; e.g., Subpart XXX applicability carries notification reporting timelines.

protecting the environment, complying with regulations, maximizing the economic value of the landfill asset, maintaining good relationships with neighbors, keeping their employees safe, and caring for large complex pieces of equipment, all while supporting communities by providing a critical public service. Complications resulting from unsettled air regulations are an unwelcome distraction, as landfill owners attempt to deal with uncertain compliance requirements and timeframes, as well as with uncertain compliance costs.

Similarly, complications have also resulted for state and local regulators, entities charged with implementing the new regulations. This is especially true for implementing the new EG rules for existing landfills (Subpart Cf) for two reasons: (1) existing landfills nationally far outnumber new landfill sites; and (2) states are required both to develop and enact state-specific implementation plans for the EG and to obtain approval from EPA for those state rules. States' preparation of EG implementation rules was due by May 30, 2017 (i.e., nine months after the new EG rule's promulgation date) and, in turn, approval by EPA was required within four months or by September 28, 2017. The states would subsequently have six months to incorporate EPA comments, if any. The deadline for preparation of state EG implementation rules has long passed, but, owing to the unsettled nature of the rules, many states and local regulators do not have EG implementation rules in place for existing landfills. In fact, the vast majority of states have not even developed EG rules and submitted them to EPA for approval.¹

Rule Update

As indicated above, the new NSPS/EG rules were issued on August 29, 2016, and went into effect on October 28, 2016. On October 27, 2016, an industry group filed administrative and judicial petitions for reconsideration of the rules. Included in the petitioners' statement of issues were concerns surrounding surface-emissions monitoring, landfill liquids-addition reporting, the use of the social cost of methane by EPA in assessing costs and benefits of the new regulations, impacts on the design plans for gas collection and control systems (GCCS), and a particular option to determine the need for a GCCS installation, known as Tier 4, that reduces operating flexibility instead of allowing more flexibility, among other issues.² Basically, the focus of this petition was on the structure of the new rules and resulting complications for compliance, not on the stringency of the rules.

The presidential election of November 2016 brought an administration with a different philosophy regarding EPA's mission and a different approach to rulemaking. On May 5, 2017, EPA announced, in a letter to the petitioners, that it would reconsider several portions of the rules in response to the petition:

"1) tier 4 surface emission monitoring; 2) annual liquids reporting; 3) corrective action timeline procedures; 4) overlapping applicability with other rules; 5) the definition of cover penetration and 6) design plan approval."



Figure 1. Landfill gas extraction wellheads.

Source: Image courtesy of SCS Engineers.

Despite having issued this letter seven months after the effective date of the new rules (October 28, 2016), the new administration's EPA issued a 90-day stay of the rule in order to review issues presented in the industry petition submitted in October 2016. By the next month, the National Resources Defense Council (NRDC) filed a motion to vacate the stay. Although there was hope that some of the issues presented in the petition could be resolved or otherwise addressed, the stay expired on its own without EPA comment. Since the expiration of the stay, EPA has, however, issued a few, pertinent public statements, including:

- Regarding rule development and resolving issues of concern: EPA will "continue to work with states and stakeholders as we develop a path forward on these separate but related actions."
- Regarding development by the states of required implementation plans for the new EG rules: According to EPA, development of EG implementation plans by states under the U.S. Clean Air Act "are not subject to sanctions"; and "Since the agency is reconsidering various issues regarding the landfill regulations, at this time we do not plan to prioritize the review of these state plans, nor are we working to issue a Federal Plan for states that failed to submit a state plan."
- On January 11, 2018, the agency withdrew extension of the stay and will continue with reconsideration of the rules.



Figure 2. Landfill gas system energy project components.

Source: Image courtesy of SCS Engineers.



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Accordingly, it appears that state regulators can choose, without fear of EPA-imposed consequences, to adopt a “wait-and-see” posture, postponing state implementation of the new rules until after EPA clarifies them.

The Path Forward

The landfill industry is continuing to work with EPA administratively to get a longer-term stay to work out needed rule changes. At this time, industry representatives are hopeful both these related goals can be achieved.

As noted above, EPA has indicated that it will not enforce or penalize state and local regulators for missing specified, EG-rule implementation timelines. This tolerance is particularly important because it may prevent potentially outdated rules from becoming fixed (i.e., rules currently effective, but which may change following federal revisions). It will also delay the time period before new EG rules will become effective.

What are landfill owners to do in this limbo period? At the time of this writing, the following actions should be considered:

- Continue maintaining compliance with the state’s current landfill air regulations, while the new regulations are being worked out.
- Diligently monitor for further developments and announcements from EPA.

- Determine if your state regulator has formal, “delegated authority” from EPA for implementation of NSPS Subpart XXX, which is applicable to new landfills. If so, this can also allow your state substantial autonomy from EPA in implementing EG rules for existing landfills.
- Very importantly, keep in regular contact with your state/local agency, staying up-to-date with their evolving plans for implementing these rules.
- Communicate regularly with industry colleagues to ensure a common understanding of the evolving new regulations.
- Comply with any new regulations the state issues in good faith and on a timely basis.
- Be aware that resolving the issue involving “the overlapping applicability with other rules,” as noted in EPA’s May 5 letter, may require significantly more time to fix than resolving the other issues involved with the rules.

While the new rules became effective back in 2016, the concerns with the rules raised at the time still remain unresolved. Despite this, we can expect resolution though it may take some time to fix. The fog should be lifting, yielding changes that are expected to be more workable for both the landfill industry and state/local regulators. In the meantime, stay tuned and stay informed. **em**

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References

1. Based on conversations with EPA officials, two states have submitted draft EG rules to the agency as of early December 2017. Many states have been working on EG rules, but only two appear to have progressed to the draft submittal stage of the process.
2. 82 FR 24878; and referenced in May 5, 2017, reconsideration letter to petitioners from EPA Administrator.

More Information

For more detailed information on the new landfill rules, how they differ from the previous ones, and issues to be resolved, please refer to the previously published article, “Landfills and Air Emissions: The Clock Has Started for Compliance with New Federal Regulations” (<http://pubs.awma.org/flip/EM-Mar-2017/greene.pdf>) by David Greene, *EM* March 2017.