

Air Toxic Rules for Landfills: MACT

Introduction

On January 16, 2003, new rules regarding the applicability of air toxic rules for municipal solid waste (MSW) landfills were published as Final Rule in the Federal Register (40 CFR Part 63 Subpart AAAA: NESHAP for Landfills). This fact sheet is designed to keep you informed about this important rule.

Applicability

The Clean Air Act (CAA) requires National Emission Standards for Hazardous Air Pollutants (NESHAP) to reflect the maximum degree of reduction in emissions of Hazardous Air Pollutants (HAPs) that is achievable for new and existing major sources. This level of control is commonly referred to as maximum achievable control technology (MACT). The new Final Rule affects landfills that have accepted waste since November 7, 1987 and/or have additional capacity for waste and meets one of the following criteria:

1. Landfill is a major source for HAPs (10 tpy single HAP or 25 tpy total HAPs).
2. Landfill is co-located with a major source.
3. Landfill has a design capacity >2.5 million Mg and NMOC emissions >50 Mg/yr – e.g., it is required to install a gas collection and control system (GCCS) per NSPS/EG.
4. Landfill includes an anaerobic bioreactor¹ and has a design capacity >2.5 million Mg and is not permanently closed as of date of the Final Rule. [Note that NMOC emissions DO NOT need to be >50 Mg/yr if a bioreactor is present.]

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1 See SCS' bioreactor landfill service brief. To order this service brief please send a request to service@scsengineers.com.



About SCS Engineers

SCS Engineers is a full-service environmental engineering, construction, and operations and maintenance firm specializing in solid waste and environmental services. Our professional practice began in 1970 in Long Beach, California and has since grown to a national network of more than 35 offices and 400 employees. Today, the firm continues to serve a range of public and private clients.

Question about how MACT affects your operations?
Please contact Mr. Bob Gardner, PE
at 1-800-569-9702,
rgardner@scsengineers.com



What about Bioreactors?

The new rule would appear to have the effect of possibly encouraging somewhat or discouraging rather sharply the development of a bioreactor depending on NSPS status, as follows:

- Since landfills with design capacities less than 2.5 million Mg are not affected by the new rule unless they are major sources, they can install a bioreactor on a part or the entire landfill without triggering NSPS or the new NESHAP requirements, unless they become major sources as a result.
- For landfills that are above the 2.5 million Mg threshold but have shown to be emitting less than 50 Mg NMOCs through a Tier 2 test, the installation of a bioreactor might trigger the new NESHAP rule's requirements to install a GCCS.



Summary of MACT Requirements

Requirements are the same as for NSPS/EG, except for the following additional requirements:

1. Semi-Annual reporting: The NSPS annual report must be submitted semi-annually.
2. A start-up, shutdown, and malfunction (SSM) Plan must be developed and submitted. If actions taken during a SSM event are consistent with the SSM Plan, information on actions taken are to be included in a semi-annual SSM Plan Report. If any actions are taken during a SSM event that are not consistent with the SSM Plan, information on actions taken must be reported within 2 working days after commencing the actions, followed by a letter 7 days after the event.
3. Deviation reporting: Continuous parameter monitoring, as required under NSPS/EG, is used to demonstrate compliance with operational requirements of this subpart. A deviation occurs when one of the following occurs:
 - Control device operating parameter boundaries defined in the NSPS/EG rule are exceeded.
 - When 1 or more hours during a 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour.
 - When a SSM plan is not developed, implemented, or maintained on site.

Compliance

Compliance dates depend on whether the landfill is a "new" affected source, defined as an affected source that commenced construction or reconstruction after 11/7/2000, or an existing affected source, as follows:

1. New affected sources - As of the date of the Final Rule or date the landfill begins operating, whichever is later. Compliance with requirements over and above NSPS must begin by date of GCCS installation. Bioreactors landfills must have a GCCS installed before initiating liquids addition, and start up 180 days after initiation or within 180 days after reaching 40 percent moisture content.
2. Existing affected sources - One year after date of Final rule.
3. Existing affected sources functioning as bioreactors where liquids addition is not initiated until at least 3 years after the Final Rule – New affected sources schedule applies. 🇺🇸

