

LMOP Quick Reference Sheet: Regulations and Proposals Affecting Landfills and LFG Energy Projects



January 2012

GHG Reporting Rule (final rule published 10/30/09) –

MSW landfills are required to report if annual CH₄ generation \geq 25,000 metric tons CO₂e. Subject landfills report CH₄ generation, emissions, and associated data. For the final rule, a landfill information sheet, FAQs, an applicability tool, and data reported by subject landfills: <http://www.epa.gov/climatechange/emissions/ghgrulemaking.html>.

GHG Endangerment Finding (published 12/15/09) –

EPA determined that the current and projected concentrations of the six key well-mixed GHGs, including CH₄, in the atmosphere threaten the public health and welfare of current and future generations. For the full findings, background information, and other resources: <http://www.epa.gov/climatechange/endangerment.html>.

PSD and Title V GHG Tailoring Rule (final rule published 6/3/10) –

Set thresholds for GHG emissions that define when CAA permits under Title V and NSR permit programs would be required. There are two initial phases:

Step 1 (Jan '11 – Jun '11): no sources were subject due solely to emissions of regulated GHGs, rather something else must have triggered the new requirements.

- PSD sources already subject: net GHG emissions increase of \geq 75,000 tons CO₂e.
- Title V sources already subject: when applying for, renewing, or revising permit.

Step 2 (Jul '11 – Jun '13): regulated GHGs do affect applicability.

- PSD sources: \geq 100,000 tons/yr CO₂e for New;
increase of \geq 75,000 tons/yr CO₂e for Existing sources with \geq 100,000 tons/yr CO₂e.
- Title V sources: \geq 100,000 tons/yr CO₂e.

Biogenic CO₂ was not exempted in the promulgated rule, however, on July 20, 2011, EPA finalized a three-year deferral of CO₂ emissions from biogenic sources, which means these emissions do not need to be included when determining if a stationary source meets applicability thresholds.

For the rule, proposed deferral, guidance document, and other information: <http://www.epa.gov/nsr/ghgpermitting.html>.

Internal Combustion Engines NESHAP (final rules 8/20/10, 3/9/11) and NSPS

(final rule 6/28/11) – The NESHAP established emission standards, monitoring, recordkeeping, and reporting requirements for LFG-fired internal combustion engines at major and area sources of HAP. Existing, non-emergency, spark ignition, LFG-fired engines:

- \geq 100 HP and \leq 500 HP at major sources: limit of 177 ppmvd CO at 15% O₂.
- any size at area sources: management practice standards in lieu of a CO limit.

Previous NESHAP in 2004 and 2008 set standards for other LFG-fired engines.

The final Spark Ignition NSPS contains emission standards, monitoring, recordkeeping, and reporting requirements for new spark ignition engines (including LFG-fired).

For the final rules and other information: <http://www.epa.gov/ttn/atw/rice/ricepg.html> ,

<http://www.epa.gov/ttn/atw/nsps/sinsps/sinspspg.html>.

Major Source Boiler and Process Heater NESHAP (final rule published 3/21/11; stay to delay effective date of rule 5/18/11; reconsideration proposal 12/23/11) –

EPA is reconsidering this standard and has issued a stay to delay its effective date, allowing additional time to review public comments and input submitted. Owners/ operators of LFG-fired boilers/process heaters at major sources can submit comments on the proposal or additional data and information about their sources and emissions for EPA's consideration by February 21, 2012. EPA expects to finalize this rule in 2012 after reviewing data and comments received on the proposal.

Per the 12/23/11 proposal, LFG-fired units that operate no more than 876 hr/yr, have a design heat input capacity < 10 MMBtu/hr, or fire a gas stream that either meets a minimum CH₄ content or heating value or does not exceed the maximum Hg concentration will be subject to tune-up work practices. The proposal also exempts a unit used as a control device to comply with another MACT standard if ≥ 50% of its heat input is from the gas stream regulated under that standard. Units not meeting the above criteria would be subject to emission limits for PM, HCl, Hg, and CO.

For the reconsideration proposal and other information:
<http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.

NSPS and EG for MSW Landfills (final rule published 3/12/96) –

Landfills that are greater than or equal to 2.5 million Mg and 2.5 million cubic meters in design capacity and have estimated emissions of non-methane organic compounds (NMOCs) of at least 50 Mg per year must reduce their emissions of LFG. For landfills that commenced construction, reconstruction, or modification on or after May 30, 1991, the NSPS apply. For older landfills that received waste after November 8, 1987, the EG apply. For the final rule and other information: <http://www.epa.gov/ttn/atw/landfill/landfillpg.html>. Amendments have been proposed but are not yet final.

NESHAP for MSW Landfills (final rule published 1/16/03) –

Landfills with design capacities of at least 2.5 million Mg and 2.5 million cubic meters and estimated uncontrolled emissions of NMOCs of at least 50 Mg per year are required to collect and treat or control emissions of LFG. Subject landfills that operate part or all of the landfill as a bioreactor must install collection and control systems for the bioreactor earlier than would be required by the NSPS. The NESHAP also require semi-annual compliance reporting, instead of the annual reporting required by the NSPS.

For the final rule and other information: <http://www.epa.gov/ttn/atw/landfill/landfillpg.html>.

For More Information:

EPA Climate Change site

<http://www.epa.gov/climatechange/>

**LMOP LFG Energy Project Development Handbook, Chapter 5.
Landfill Gas Contracts and Permitting**

http://www.epa.gov/lmop/documents/pdfs/pdh_chapter5.pdf

Clean Air Act

<http://www.epa.gov/lawsregs/laws/caa.html>

EPA Rulemaking Gateway

<http://yosemite.epa.gov/oepi/RuleGate.nsf/>