

NESHAP for Stationary Landfill Gas RICE

Landfill Methane Outreach Program (LMOP)
13th Annual Conference and Project Expo
January 13, 2010

Melanie King
EPA/OAQPS/SPPD/Energy Strategies Group

Agenda

- Overview of subpart ZZZZ
- Current proposed amendments
- Next steps



Subpart ZZZZ

Introduction

- Statutory authority
- MACT and GACT
- Who is subject to subpart ZZZZ?
- Major source vs. area source of HAP

History of Subpart ZZZZ

- Originally promulgated 6/15/2004
- Amended 1/18/2008
- Additional amendments proposed 3/5/2009
 - Must be finalized by 8/10/2010



Subpart ZZZZ Requirements for Landfill Gas Engines

- Varies by size, construction date, and location:
 - new/reconstructed >500 HP located at major source
 - new/reconstructed
 - ≤ 500 HP located at major source
 - all HP located at area source
 - existing all HP, major and area source
 - recently proposed amendments for:
 - existing ≤ 500 HP at major source
 - existing all HP at area source

Determining Existing vs. New

- >500 HP at major source
 - existing means constructed before 12/19/2002
- ≤ 500 HP at major source and all HP at area source
 - existing means constructed before 6/12/2006

Subpart ZZZZ Requirements for Landfill Gas Engines

- existing all HP, major and area source
 - currently no requirements
 - 2010 amendments will change this, except for >500 HP at major source
- new/reconstructed >500 HP located at major source
 - initial notification
 - monitor/record fuel usage
 - submit annual report

Brick MACT Decision

- “No control” MACT floors unlawful
- For major sources, EPA must set emission standards



NSPS Emission Limitations

Engine Type and Fuel	Max Engine Power	Manufacture Date	NO _x	CO	VOC	NO _x	CO	VOC
			g/HP-hr			ppmvd @ 15% O ₂		
Landfill gas (except lean burn 500 ≤ HP < 1350)	HP < 500	7/1/2008	3.0	5.0	1.0	220	610	80
		1/1/2011	2.0			150		
	HP ≥ 500	7/1/2007	3.0	5.0	1.0	220	610	80
		7/1/2010	2.0			150		
Landfill gas lean burn	500 ≤ HP < 1350	1/1/2008	3.0	5.0	1.0	220	610	80
		7/1/2010	2.0			150		

Limits apply to new LFG engines at area sources and new LFG engines ≤ 500 HP at major sources

Other Compliance Requirements for NSPS

- Performance testing
 - 25-500 HP: initial only
 - >500 HP: initial plus every 3 years or 8,760 hours, whichever comes first
- Maintenance plan
- Recordkeeping/reporting

Proposed Amendments to Subpart ZZZZ for Landfill Gas Engines

- Existing major sources ≤ 500 HP and area sources > 500 HP
 - CO emission limitation of 177 ppmvd @ 15% O₂
 - performance testing
- Area sources ≤ 500 HP
 - management practices
- Startup/shutdown/malfunction

Comments on 3/5/2009 Proposal

- Emission limits too stringent/not achievable
- Work/management practices are more appropriate
- Data quality
- Inconsistent requirements

Next Steps

- Final amendments for existing engines must be signed by 8/10/2010
 - additional emissions data and management practice information is welcome
- 8-year residual risk and technology review for engines >500 HP at major sources – 2012

For More Information

Melanie King

EPA/OAQPS/SPPD

Energy Strategies Group

king.melanie@epa.gov

919-541-2469

<http://www.epa.gov/ttn/atw/rice/ricepg.html>

Docket # EPA-HQ-OAR-2008-0708