MSW LANDFILL MACT STANDARD DEVELOPMENT

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I. Introduction and Opening Remarks

II. Regulatory Background

III. Overview of MACT Development Process

I. Introduction and Opening Remarks

II. Regulatory Background

Clean Air Act
Section 112 Requirements /
MACT Standards

Section 112 Overview

- General goal of Section 112: to reduce emissions of toxic air pollutants from all affected sources to the levels achieved by the best performing affected sources
- Performance or technology based approach to regulation
  - Not risk management or public exposure approach

Section 112 Overview (cont.)

- Regulates hazardous air pollutants (HAP)
  - 188 pollutants are listed
- Based on maximum achievable control technology (MACT)

Section 112 Overview (cont.)

- MACT applies to major sources of emissions
  - > 10 tpy of any single HAP
  - > 25 tpy total HAP
- "Area" sources (i.e., non-major sources) also considered for regulation under 112

MACT Definition

The maximum degree of reduction in HAP emissions the Administrator determines is achievable, considering the cost of achieving the reduction and any non-air-quality health and environmental impacts and energy requirements [see § 112(d)(2)].

MACT Floor Definition

For New Sources [see § 112(d)(3)]:

- The emission control achieved in practice by the best controlled similar source.

For Existing Sources:

- The average emission limitation achieved by the best performing 12% of existing sources if 30 or more sources / facilities [see § 112(d)(3)(A)], or
- The average emission limitation achieved by the best performing 5 of the existing sources if fewer than 30 sources / facilities

III. Overview of MACT Development Process

MACT Development Process

- Determine Presumptive MACT (PMACT)
- Determine MACT Floor
- Identify alternatives more stringent than floor
- Consider costs, health, environmental and energy requirements of alternatives more stringent than MACT floor
- Determine MACT
- Propose regulations / public comment
- Promulgate regulation

Presumptive MACT (PMACT)

- Definition
  - An estimate of MACT based on available data that can be obtained quickly
- Purpose
  - To assist agencies, industry and the public in Section 112(g) case-by-case MACT determinations and with Section 112(j) hammer provision standard
  - To enhance up front planning (i.e., identify issues to be resolved early in the process)
  - To make recommendations for the proposed regulatory path

Determine MACT Floor

- Review Information
  - Collect and review available information
  - Consider how information could be used to determine MACT floor
- Generally use some combination of the following:
  - Source test emission data
  - Technology or hardware in use
  - State regulations or permits

Potential Standard Format

- Percent reduction (e.g., 95% HAP reduction)
- Emission limit (e.g., 20 ppm)
- Combination emission limit & percent reduction (e.g., 95% reduction or 20 ppm)
- Limit on HAP content in waste stream
- Design, equipment, work practice or operational standard

Potential Standard Options

- All HAP (as defined in rule)
- Designated HAP (e.g., NMOC as surrogate for all HAP)

Identify Alternatives

➢ MACT may be more stringent than MACT floor

➢ Identify control techniques and achievable emission levels

➢ Develop regulatory alternatives more stringent than floor (if achievable)

Estimate & Consider Impacts of Alternative

- Emission reduction
- Cost of control
- Non-air quality health and environmental impacts
- Energy requirements
- Economic impacts
- Benefits

Develop Proposal Package

- Draft and Revise
  - Preamble
  - Regulation
- Appropriate reviews within Agency, OMB
- Address other executive orders and Acts: SBREFA, Unfunded Mandates, RFA, PRA, ...

Propose Regulations / Public Comment

- Propose rule in Federal Register
- Public comment period / hearing if requested
- Summarize public comments
- Address public comments
  - Consider comments
  - Revise databases /reanalyze if substantive new information is presented
  - Prepare written comment responses

Promulgate Regulations

- Brief management on comments and possible changes to proposed rules
- Promulgate rule in Federal Register

MACT Compliance and Effective Dates

- Effective date is publication in the FR.
- Compliance date for existing affected sources is 3 years after effective date for installation of add-on control device.
- Compliance date for existing affected sources may be less if new add-on control device is not needed for compliance.
- Compliance date for new affected source is upon startup.

Issues Under Consideration

- Landfill surface emissions
- Leachate emissions
- Petroleum contaminated soil emissions

Landfill HAPs

- 1,1,2,2-Tetracholorethane
- Acrylonitrile
- Benzene
- Carbon Disulfide
- Carbon Tetrachloride
- Carbonyl Sulfide
- Chlorobenzene
- Chloroform
- Ethyl Chloride
- Ethylbenzene
- Ethylene Dichloride
- Ethylidene Dichloride
- Hexane
- Mercury Compounds

Landfill HAPs

- Methyl Chloroform
- Methyl Ethyl Ketone
- Methyl Isobutyl Ketone
- Methylene Chloride
- Polychlorinated Biphenyls
- POM as 16-PAH
- Propylene Dichloride
- Tetrachloroethylene
- Toluene
- Trichloroethylene
- Vinyl Chloride
- Vinylidene Chloride
- Xylene

Landfill MACT Schedule

Item	Schedule
➢ Site Visits	September 1998
➢ Data Analysis-Inventory	March 1999
➢ Data Analysis-Emission Test Data	March 1999
➢ PMACT Determination	April 1999
➢ MACT Floor Analysis	April 1999
➢ Area Source Issue/Analysis	June 1999
➢ Baseline Emission Estimates and National Impact Analysis	July 1999
➢ Propose MACT	April 2000
➢ Promulgate MACT	Late 2000

Note: Stakeholder Meetings—scheduled on an as needed basis as major milestones And decision points are reached in the project.

Rule Development Information Sites

- NSPS Landfill Webpage-- http://www.epa.gov/ttn/uatw/landfill/landflpg.html
- MACT Landfill Webpage-- http://www.epa.gov/ttn/uatw/landfill/rdlandfl.html
- E-mail Address--laur.michele@epa.gov
- Mailing Address--MD 13, RTP, NC 27711
- Phone Number--(919)541-5256