

2004 SBO/SBAP Conference Area Source Program Overview

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Standards

Background

- Area sources are those with potential to emit less than 10 tpy for a single HAP and less than 25 tpy for combined HAP
- Collectively, area sources are important air toxics contributors especially in urban areas
 - Represent about 50 percent of national stationary source emissions
 - Many emit air toxic metals which are also fine PM
- However, individual area sources are small emitters, many sources emit less than 100 pounds of HAP

Clean Air Act Requirements

- Create a strategy to control air toxics emissions from area sources in urban areas
- Identify not less than 30 HAP that represent the greatest threat to public health
- List area source categories representing at least 90 percent of the emissions of the listed HAP
- Achieve at least a 75-percent reduction in risk attributable to area source emissions

Status

- The Integrated Urban Strategy was published July 19, 1999 (64 FR 38706)
- 70 source categories have been listed
 - Listing was completed in November 2002
 - Most source categories were prioritized via a toxicity weighting analysis (i.e., multiplied tons of each HAP emitted by a source category by the potency of each HAP)

Status (Con't)

- 15 standards have been promulgated for 15 area source categories
- 55 source categories remain to be addressed
 - 5 standards have consent decree dates agreed upon with Earth Justice
 - All standards will be initiated by October 2006

Area Sources Highest Risk HAP List

acetaldehyde	hexachlorobenzene
acrolein	hydrazine
acrylonitrile	lead compounds
arsenic compounds	manganese compounds
benzene	mercury compounds
beryllium compounds	methylene chloride (dichloromethane)
1,3-butadiene	nickel compounds
cadmium compounds	polychlorinated biphenyls (PCBs)
chloroform	polycyclic organic matter (POM)
chromium compounds	quinoline
1,2-dichloropropane (propylene dichloride)	2,3,7,8-tetrachlorodibenzo-p-dioxin
1,3-dichloropropene	1,1,2,2-tetrachloroethane
ethylene dichloride (1,2-dichloroethane)	tetrachloroethylene (perchloroethylene)
ethylene oxide	trichloroethylene
formaldehyde	vinyl chloride

Completed Area Source Standards

Area Source Category	Date Completed
Chromic Acid Anodizing	01/95
Decorative Chromium Electroplating	01/95
Hard Chromium Electroplating	01/95
Commercial Sterilization Facilities	12/98
Dry Cleaning Facilities	09/93
Halogenated Solvent Cleaners	12/94
Hazardous Waste Incineration	09/99
Medical Waste Incinerators	09/97
Municipal Waste Combustors (small)	12/00
Municipal Landfills	01/03
Portland Cement	06/99
Publicly Owned Treatment Works	10/99
Secondary Aluminum Production	03/00
Secondary Lead Smelting	06/97
Mercury Cell Chlor-Alkali Plants	12/03

Standards with Consent Decree Completion Dates

Area Source Category	Proposal Date	Promulgation Date
Oil and Natural Gas Production	06/05	12/06
Stationary Internal Combustion Engines	10/06	12/07
Hospital Sterilizers	10/06	12/07
Other Solid Waste Incineration	11/04	11/05
Gasoline Distribution Stage I	10/06	12/07

Standards Started in October 2003

Area Source Categories	
Steel Foundries (1)	Plating and Polishing (12)
Stainless and Nonstainless Steel Manufacturing EAF (2)	Agricultural Chemicals & Pesticides Manufacturing (14)
Flexible Polyurethane Foam Production (3)	Industrial Inorganic Chemicals Manufacturing (16)
Industrial Boilers (5)	Fabricated Plate Work (17)
Secondary Nonferrous Metals (6)	Clay Ceramics Manufacturing (18)
Iron Foundries (7)	Cyclic Crude and Intermediate Production (19)
Primary Nonferrous Metals - Zn, Cd, Be (8)	Chemical Preparations (20)
Paint and Allied Products (9)	Paint Stripping Operations
Plastic Parts and Products (Surface Coating) (10)	Auto Body Refinishing
Pressed & Blown Glass & Glassware Manufacturing (11)	Institutional/Commercial Heaters

Future Starts

STANDARDS TO BE STARTED BY OCTOBER 2004 [9]	STANDARDS TO BE STARTED BY OCTOBER 2005 [5]
Lead Acid Battery Manufacturing	Pharmaceutical Production
Secondary Copper Smelting	Copper Foundries
Ferroalloys Production: Ferromanganese & Silicomanganese	Iron and Steel Forging
Primary Copper (not subject to Primary Copper Smelting MACT)	Valves and Pipe Fittings
Acrylic Fibers / Modacrylic Fibers Production	Flexible Polyurethane Foam Fabrication
Miscellaneous Organic Chemical Manufacturing (MON)	
Industrial Organic Chemicals Manufacturing	
Plastic Materials and Resins Manufacturing	
Synthetic Rubber Manufacturing	

Future Starts (Con't)

STANDARDS TO BE STARTED BY OCTOBER 2006 [16]	
Sewage Sludge Incineration	Heating Equipment, Except Electric
Wood Preserving	Inorganic Pigments Manufacturing
Asphalt Processing and Asphalt Roofing Manufacturing	Nonferrous Foundries, nec
Carbon Black Production	Prepared Feeds Manufacturing
Industrial Machinery and Equipment: Finishing Operations	Primary Metals Products Manufacturing
Electrical and Electronic Equipment: Finishing Operations	Brick and Structural Clay Products Manufacturing
Fabricated Metal Products, nec	Chemical Manufacturing: Chromium Compounds
Fabricated Structural Metal Manufacturing	Polyvinyl Chloride and Copolymers Production

Rulemaking

- Standards may be based on generally available control technology (GACT) or Maximum Achievable Control Technology (MACT)
- The advantages of GACT
 - Allows more flexibility
 - There is no floor to calculate
 - Cost effectiveness is considered
- MACT is average of the best performing 12% (30 or more sources) or average of best performing five (< 30 sources)
- Typical standard development takes 4 to 5 years

Source Characteristics

- There are numerous facilities (many small businesses)
- Most sources have not been regulated before
- Most sources are difficult to locate
 - Most are not included in existing inventories
 - Most are not required to report under SARA Title III
 - Many are not represented by trade associations
- There are typically small amounts of emissions per facility

Emissions Reductions

- As emissions from major sources are reduced, area sources will represent a larger portion of HAP emissions
- To ensure the most reductions, we need to:
 - Explore pollution prevention options and incentives
 - Develop user friendly and cost effective control options
 - Develop innovative compliance measures (e.g., simplified monitoring plans, reduced recordkeeping)

Voluntary Program

- We are developing a program of voluntary initiatives to obtain air toxic emission reductions from area sources in urban communities
- The initiatives will be developed with the assistance of industry trade associations or similar organizations
- This initiative is being developed to complement the rulemaking process – not replace it
- The programs will be self-certifying

Voluntary Program-Mandatory Selection Criteria

- On the air toxics area source list
- Strong trade association (or similar organization)
- Currently unregulated by any NESHAP
- No court-ordered promulgation date

Voluntary Program-Other Selection Criteria

- Significant urban presence (density and emissions)
- Voluntary emissions reduction program already developed (such as a design for the environment program)
- Opportunity for meaningful emissions reductions

Voluntary Program-Other Selection Criteria (Con't)

- High level of industry interest
- Opportunity to minimize data gathering
- Significant PM/VOC co-benefits

Summary

- Individual area sources are small emitters, but collectively they are important toxic contributors, especially in urban areas
- 55 source categories that remain to be addressed
 - Work has been initiated on 25 source categories
 - The remaining 30 will be initiated by October 2006
- Standards may be MACT or GACT
- A voluntary program is being developed to complement the regulatory development program