

# Air Toxics

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Inspector Training Workshop

April 2007

# Hot Topics in the Air Toxics Program

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## **Presentation at the EPA Region 4 Air Toxics Summit**

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# Overview

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- Area Source Program
- Residual Risk and Technology Review
- Monitoring
- Other Activities
  - HAP List Revisions
  - Once-In-Always-In
- Summary

# Area Source Program

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# Statutory Authority (Clean Air Act)

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- **Sections 112(c)(3) and 112(k)(3)(B)(ii)**
  - List area source categories representing at least 90 percent of the emissions of the 30 listed HAP
  - Promulgate regulations by November 15, 2000
- **Section 112(d)(5) allows us to address source categories using GACT (Generally Available Control Technology)**

# Background

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- CAA Section 112(k) requires EPA to:
  - develop an urban air toxics strategy
  - identify at least 30 urban HAPs
  - list area source categories
  - ensure 90% of the emissions from area sources are subject to standards (by November 15, 2000)

# Status of the Area Source Program

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- Total of 70 source categories
  - Completed 21 to date
  - 6 categories must be proposed and promulgated by this June to meet court order
  - Starting this December, we must promulgate 10 categories every 6 months through June 2009
  - An additional 4 categories must be promulgated this year according to a previous settlement agreement

# Strategy for Implementing Area Source Program

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- Potentially large burden to permitting authorities to implement this program
  - Many source categories that have not previously been affected by Federal rules
  - Small sources and many small business
  - Added on top of major source program
- Strategy
  - Target most stringent controls in urban areas where more people are concentration
  - Explore flexibility through performance-based rule



# Urban Air Toxics Strategy

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- ❑ EPA published the Integrated Urban Air Toxics Strategy on July 19, 1999
- ❑ The Strategy identified 33 HAPs that, on a national scale, pose the greatest threat to public health in the largest number of urban areas. (30 HAPs associated with area sources)
- ❑ List contains 8 metals and 22 organics

# Identification of Source Categories

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- Based on a Section 112(k) emissions inventory, representing a baseline of 1990
- The Strategy initially identified 29 source categories
  - 16 already regulated, plus
  - 13 additional categories that contributed at least 15% of one or more urban HAPs
- Additional notices published Jan 30, 2001; June 26, 2002; and November 22, 2002

# Title V and the Area Source Program

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- The CAA allows EPA to exempt area sources from the requirements of Title V if requirements are impracticable, infeasible, or unnecessarily burdensome
  
- If a source was otherwise required to obtain a Title V permit through their delegated authority, then they would **not** be affected by the exemption
  
- We consider whether Title V:
  - Imposes significant burden;
  - Would improve compliance;
  - Costs would be justified, taking into consideration any potential gains in compliance.
  
- Also, we consider whether existing state and local programs can take the place of a permit

# Status of the Area Source Program

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# Recent Court Order

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- Court Order received March 31, 2006
- Court ordered schedule for 50 remaining area source categories under 112(k)
  - 4 source categories by December 15, 2006
  - 6 source categories by June 15, 2007
  - 10 source categories by December 15, 2007
  - 10 source categories by June 15, 2008
  - 10 source categories by December 15, 2008
  - 10 source categories by June 15, 2009

# Strategy

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- First Deadline – December 15, 2006
  - Met by using 4 source categories that are well-controlled as a result of existing Federal or State requirements.
    - PVC and Copolymers Production
    - Secondary Copper Smelting
    - Primary Copper Smelting
    - Primary Nonferrous Metals Production
- Second Deadline – June 15, 2007
  - Meet by using 6 source categories that meet same criteria as the first four categories.

# Strategy (cont'd)

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- Meet remaining deadlines (Dec, 07 – June 09) by relying upon various approaches to address the remaining categories.  
Approaches may include:
  - Some categories may be addressed through a more traditional rule development process.
  - Grouping of multiple categories based on similar processes and emissions.
  - Generic performance based rule that could be structured to address multiple categories.

# Control Requirements

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- ❑ Section 112(c)(6) requires that listed source categories be subject to standards under Section 112(d)(2) or 112(d)(4)
- ❑ MACT under 112(d)(2) is determined by the average emission limit achieved by the best performing 12 percent of the existing sources



# Control Requirements (cont'd)

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- Section 112(d)(5) allows for alternative standards for area sources
- Standards can provide for the use of Generally Available Control Technology (GACT) or management practices

# Area of Coverage

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- Urban Strategy indicated that EPA expected to apply area source standards nationally
  - Negative impact on urban areas (e.g., urban sprawl)
  - Concern for health risks in rural areas
- For some source categories, it may be more appropriate for the standards to apply only in urban areas

# What to Expect

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- ❑ Expect area source rules to be steadily issued over the next 3 years.
- ❑ Expect rules fulfilling each court-ordered deadline to be published together.
- ❑ Expect GACT requirements for area source categories to be less burdensome than MACT standards.

# Residual Risk Program

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# Background

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- ❑ Completed 7 rules to date; an 8<sup>th</sup> is due this April
- ❑ CAA requires residual risk and technology reviews for 96 MACT standards
- ❑ First 8 reviews show MACT standards generally did a good job
  - Two MACT standards had low risk
  - Three MACT standards were not low risk but no additional controls were required
  - Two MACT standards required additional controls and the last MACT likely will

# How Are We Moving Forward On The Residual Risk Program?

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- Identified 34 MACT standards (50 source categories) with compliance dates of 2002 and earlier
  - Compiled, reviewed and supplemented 2002 NEI data for these categories
  - Modeled to obtain preliminary estimated inhalation risks, including cancer (maximum risk, population risk, and incidence), and non-cancer (chronic and acute effects)
- Break source categories into groups based on preliminary screening results
  - Low risk
  - Need refined risk assessment
  - Assessment needs longer time frame

# How Would We Proceed if Additional Controls are Needed for an Ample Margin of Safety ?

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- ❑ Additional requirements would be amendments to the existing MACT standards
- ❑ If possible, identify low risk source characteristics that would exempt a portion of the source category from additional requirements
- ❑ Provide for site specific risk assessment to show low risk and avoid additional control?

# Schedule

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- Group 1 low risk source categories
  - NPRM – March 2007
  - Final Rule – March 2008
  
- Group 2
  - ANPRM – Late February 2007
  - NPRM – September 2007
  - Final Rule – September 2008



# Monitoring

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# Continuous Parameter Monitoring Systems (PS-17)

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- ❑ MACT & NSPS rules frequently include requirements for process or control device operational parameters
- ❑ We recognize the need for performance specifications
- ❑ We have begun work on draft performance specifications and quality assurance requirements

# Interpretive Rule for Parts 70/71 Monitoring (previously known as Umbrella Monitoring Rule)

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- ❑ Finalized December 15, 2006
- ❑ Final interpretation is that Sections 70.6(c)(1) and 71.6(c)(1) of 40 CFR parts 70 and 71 do not authorize an independent assessment of the adequacy of or adding monitoring requirements to operating permits

# Revisions to Part 64, Compliance Assurance Monitoring (CAM)

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- Applies to Pre-1990 rules
- Currently revising rule to expand the applicability of part 64 by applying the same monitoring design principles to nearly every type of pollutant-specific emissions unit at Title V sources

# Emission Factor Development

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- Updated and added several sections to AP-42 in 2006
- Expect to add new data for other industry categories including coke ovens, landfills, natural gas productions, municipal waste combustors and rubber manufacturing in 2007

# Other Activities

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# HAP List Revisions

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- 189 HAP Initially Listed
- Revisions to the List
  - Pollutants known or suspected of causing cancer or other serious health effects
- Delistings
  - Caprolactum
  - Ethylene Glycol Monobutyl Ether (EGBE)
  - Methyl Ethyl Ketone (MEK)
- Listings
  - Petition received to list Diesel Exhaust as HAP
  - Petition received to list Hydrogen Sulfide as HAP

# Once In, Always In (OIAI)

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- EPA announced the original “Once In, Always In” (OIAI) policy on May 16, 1995.
  
- Proposed rulemaking addressing OIAI policy published in the Federal Register on Jan. 3, 2007
  - Provides flexibility for sources to become area sources at any time
  - Proposal would require major sources wishing to become area sources to take potential to emit limitations that cap emissions below major source thresholds.
  
- Public comments due on March 5, 2007



# Summary

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- ❑ Many court-ordered deadlines
- ❑ Actively working to streamline our rulemaking efforts and to catch up with statutory requirements
- ❑ We must consider how to make these rules implementable and enforceable
- ❑ Voluntary initiatives and education and outreach are important components to addressing urban air toxic issues
- ❑ Transitioning toward considering toxic pollutants along with all other pollutants within industry sectors to improve overall air quality management