Air Toxics Program Updates

Clean Air Act Advisory Committee

April 3, 2014

Overview

- Provide an update on several Air Toxics efforts:
  - Urban Air Toxics Report to Congress
  - Actions/Programs to Address Air Toxics
    - Regulatory and Non-Regulatory Actions
    - Community-Based Programs
  - Improve Data – e.g., National Air Toxics Assessment (NATA)

Report to Congress

- Section 112(k)(5) requires EPA to "…report to Congress at intervals not later than 8 and 12 years after November 15, 1990, on actions taken under this subsection and other parts of this chapter to reduce the risks to public health posed by the release of hazardous air pollutants from area sources."
  - !st Report to Congress issued in September 2000
  - 2nd Report to Congress forthcoming

Organization of Report

Chapters	Description
1 – Introduction and Background	Info on the strategy, list of 30 HAPs, area source categories, and report overview
2 – Standard-Setting Activities	Standard setting activities for stationary and mobile sources
3 – Identify Air Toxics Risks in Urban Areas	Range of assessment activities undertaken to measure progress toward meeting section 112(k)
4 – National, Regional, and Community-Based Initiatives	An overview of national, regional, and community-based projects and approaches taken to develop partnerships
5 – Education and Outreach	Update on education and outreach efforts
6 – Research to Address Knowledge Gaps	Sampling of research projects to highlight progress in addressing research needs identified in first report.
7 – Conclusions and Looking Ahead	Summary of key findings and areas where continued effort is needed

Report to Congress – What Have We Learned?

- Substantial progress has been made
  - Lower emissions – e.g., reduced stationary source HAP emissions by over 1.5 million tons/yr, and mobile source HAP emissions by about 50% since 1990
  - Lower ambient concentrations – e.g., benzene levels declined by 66% from 1994 to 2009
- Several areas where continued effort is needed, including:
  - Role of regulatory and non-regulatory actions
  - Importance of community-based programs
  - Improve data

National Actions on Air Toxics

- For stationary sources:
  - Rules for 68 area source categories, representing 90% of the worst urban HAPs - 112(k)
  - 97 maximum achievable control technology (MACT) standards covering all 174 major source categories - 112(c)
  - Standards for sources of 7 specific bio-accumulative toxic pollutants (112(c)(6)) and solid waste combustion sources (129)
  - Finalized risk and technology reviews for 42 source categories to date -112(f)
- For mobile sources:
  - Rule in 2007 to reduce air toxics from gasoline-fueled passenger vehicles, gasoline fuel, and portable fuel containers
  - Many rules to reduce VOCs, including gaseous air toxics, and diesel particulate matter from a range of on- and off-road gasoline and diesel vehicles and equipment

Other Initiatives to Reduce Emissions of Air Toxics

- National/Regional Initiatives:
  - ***Wood Smoke Program*** has reduced wood smoke emissions by replacing nearly 24,000 stoves & fireplaces resulting in nearly 63 tons of HAPs and 370 tons of PM from the air annually (2007 through 2011).
  - ***Collision Repair Campaign*** helped autobody shops reduce harmful HAP, VOC, and PM emissions, particularly in urban areas.

- Mobile Source Initiatives:
  - ***National Clean Diesel Campaign*** promotes clean air strategies by working with manufacturers, fleet operators, and state/local officials. Program provided over $500M in grants between 2008 and 2011 and is expected to achieve significant PM and NO_x reductions.
  - ***SmartWay*** transport partnership is a collaborative program between EPA and the goods movement sector to increase the energy efficiency and energy security of our country while significantly reducing air pollution (over 9,000 tons of PM to date).

Community Programs to Address Local Concerns

EPA has initiated/supported a number of community-based programs to address local concerns:

Community–based Programs	Focus	Resources
Community Air Risk Reduction Initiative (CARRI)	Enabled communities to better understand local issues.	Awarded $4M to over 30 communities between 2001 and 2005
Community Action for a Renewed Environment (CARE)	Implements local solutions to minimize public health risks.	Over $16M and 100 grantees between 2005 and 2011
Community-Scale Air Toxics Ambient Monitoring Grants	Assist state, tribal, and local communities to identify sources and characterize the problem.	Over $22.6M between 2003 and 2011
Sustainable Skylines & 7th Generation Tribal Initiatives	Assist communities and tribes to build partnerships to reduce emissions & achieve sustainability	$1M awarded to 6 communities and 3 tribes between 2007 and 2010

2011 NATA

- Current NATA is based on 2005 data which is almost a **decade old** (e.g., 2005 emission inventory, 2000 census data).

- Goals of 2011 NATA
  - Identify chronic air toxic exposures, and cancer and noncancer risks resulting from emissions from outdoor sources
  - Identify sources and pollutants driving these risks at different spatial scales
  - Provide results to public and scientific community in a clear and transparent manner

- Improvements:
  - Updated emissions and census data
  - Improved analytical methods (meteorology, modeling)

2011 NATA - Status

- Progress:
  - Completed Version 1 of 2011 emissions inventory and 1st round of modeling (point and nonpoint sources)
  - Modeling for mobile sources underway – available spring 2014
  - States/Regions have reviewed emissions inventory and 1st round of modeling
  - Beginning to incorporate updates into Version 2 of inventory

- Next Steps:
  - Complete final NATA modeling using Version 2 of 2011 emissions inventory (fall 2014)
  - Further opportunity for state/regional review and comment (late fall 2014)
  - Release final results to public in early 2015

Looking Ahead

- Issue Report to Congress
- Continue efforts to identify and address air toxics problems
  - Improve data – e.g., conduct NATA 2011
  - Regulatory and non-regulatory actions, including leveraging and partnering opportunities
  - Community-based programs
- Outreach and engagement on next steps
  - Role for CAAAC?