Second Integrated Urban Air Toxics Report to Congress

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October 9, 2014

Background

- 1990 Clean Air Act Amendments (CAA) required EPA to take actions to reduce emissions & risks from Air Toxics
- Air Toxics/Hazardous Air Pollutants (HAPs) have potential for serious effects on human health:
  - Carcinogenic
  - Damage to immune, neurological, reproductive, developmental, and respiratory systems
  - Other serious health effects
  - Health concerns from both short and long term exposure

Background

- In 1999, EPA developed Integrated Urban Air Toxics Strategy for reducing cumulative public health risks in urban areas posed by exposures from major, area, & mobile sources. The Strategy consisted of 4 key components:
  - Source-specific and sector-based standards
  - National, regional, and community-based initiatives
  - National-level air toxics assessments
  - Education and outreach

Background

- EPA also required to submit 2 reports to Congress describing agency's actions to reduce public health risks from urban air toxics
  - 1st Urban Air Toxics Report released in 2000
  - 2nd Urban Air Toxics Report released August 2014

Major Findings of the Report

- Air toxics emissions significantly declined
  - Removal of ~ 1.5 million tons/year HAPs from stationary sources and ~ 3 million tons/year of criteria pollutants as a co-benefit of HAP reductions (1990 – 2012)
  - Removal ~ 1.5 million tons/year of HAPs from mobile sources (50% reduction in mobile source HAP emissions) (1990 – 2012)
  - Emission reductions achieved through EPA promulgated standards

Major Findings of the Report

- Monitors show reduced levels of key air toxics in outdoor air
  - Since 1994, benzene declined 66%
  - From 1990 – 2010, lead decreased 84%
- Some areas have elevated levels of risks from air toxics
  - 2005 National Air Toxics Assessment (NATA)
    - National average cancer risk at 50 in 1 million.
    - 13.8 Million people exposed to cancer risk >= 100 in a milllion
    - Emissions from three pollutants (formaldehyde, benzene, and acetaldehyde) contributed to 2/3 of the total risk at national level

Major Findings of the Report

- EPA is partnering with state/local governments and communities to reduce risks from air toxics
  - Since 2001, EPA provided $20 million in grant funding to communities
  - Since 2008, EPA provided over $500 million to reduce emissions from diesel engines under the National Clean Diesel Campaign

National Work to Reduce Air Toxics

- EPA issued emission standards for 68 area source categories
- Since 1990, EPA issued 97 MACT standards to cover 174 major source categories. Mercury and Air Toxics Standards for utilities was promulgated in 2012
- Mobile source regulations like the 2007 Mobile Source Air Toxics rule and the recently finalized Tier 3 vehicle and fuel standards
- Additional reductions through non-regulatory efforts (ie, National Clean Diesel Campaign) & funding to state programs to implement diesel emission reduction technologies

Challenges to current HAP Programs: Where Effort is needed

- Improved emissions data
- Ambient data in more areas for more pollutants
- New monitoring technologies that are accessible, transparent, and cost effective
- More research into cumulative impacts of exposure to air toxics on human health
- Better integration of air toxics, pollution prevention, and voluntary programs in regulatory and non-regulatory efforts
- Regulatory tools to direct national regulatory efforts at source categories where emissions pose significant risks

Discussion Topics & Input from APCB

- What types of programs and approaches are currently most effective in reducing air toxics emissions and exposures, especially in communities most burdened by air toxics?
- What promising approaches and initiatives could EPA pursue, applying and leveraging available EPA resources, to reduce air toxics risks more effectively, especially for children and other vulnerable populations?
- What strategies and programs led by others represent promising opportunities for reducing air toxics risks further in communities, especially for children and other vulnerable populations?
- How can EPA and its partners more effectively communicate with community groups and other stakeholders concerning the risks from air toxics, including ways to avoid or reduce those risks and ways to work with sources and other potential partners to reduce those risks?
- Are there additional data or perspectives beyond what are described in the *Report to Congress* that should be considered for understanding and reducing air toxics further?