

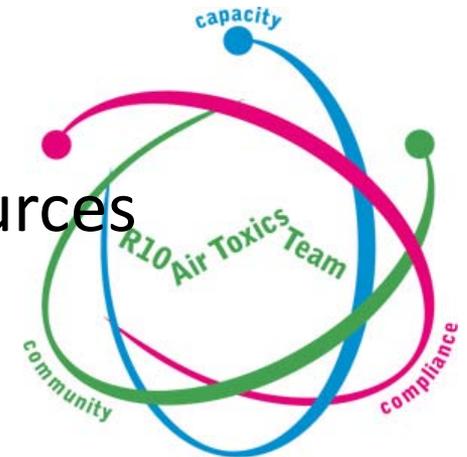


FEDERAL REGULATORY MECHANISMS TO ADDRESS AIR TOXIC IN NATIONAL PARKS

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Region 10 Air Toxics Team

Outline

- Introduction
 - WACAP Air Results
 - Air Toxics in Clean Air Act
- Air Toxics Strategy
 - Protection of human health
 - Address stationary and mobile sources
- Current and Future Regulations
- Conclusions



Introduction

- WACAP results: “Atmospherically deposited contaminants are accumulating in fish and other components”



Introduction, cont'd

- Air Toxics in the Clean Air Act
 - Prior to 1990, Clean Air Act (CAA) directed EPA
 - Identify all pollutants that caused "serious and irreversible illness or death."
 - Develop standards to reduce emissions of these pollutants to levels that provided an "ample margin of safety" for the public.



Introduction, cont'd

- Debates over “how safe is safe” and costs to industry
- Over 20 years, only 7 pollutants regulated
 - Asbestos
 - Beryllium
 - Radionuclides
 - Benzene
 - Inorganic arsenic
 - Mercury and
 - Vinyl chloride



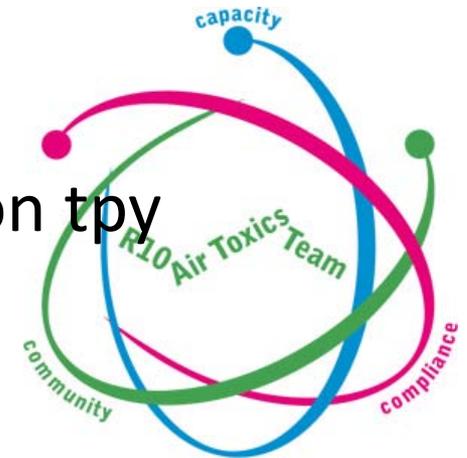
Introduction, cont'd

- 1990 CAA Amendments Congress Took More Practical Approach
- “Technology first, Risk Later”
- Develop Controls for Commercial and Industrial Sources of Hazardous Air Pollutants
- Develop Controls for Cars and trucks



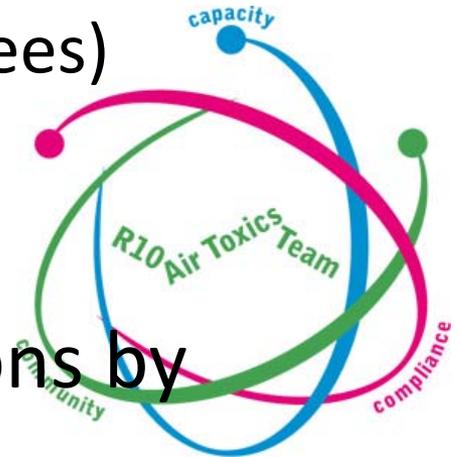
Introduction, cont'd

- EPA has promulgated or proposed regulations
 - Over 96 categories of stationary sources
 - Major sources
 - Area sources
 - Expected HAPs reduction 1.7 million tpy



Introduction, cont'd

- Mobile Source Air Toxics Rule
 - Lower benzene content in gasoline beginning 2011
 - Reduce exhaust emissions from passenger vehicles operating at cold (75 degrees) temperature
 - Ban on using metal gas cans
- Expected to reduce HAPs emissions by 330,000 tons in 2030



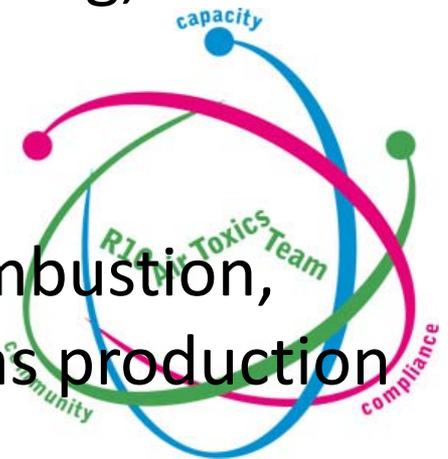
Air Toxics Strategy

- Primary focus is on protection of human health
 - Inhalation
 - Ingestion
 - Deposition into water



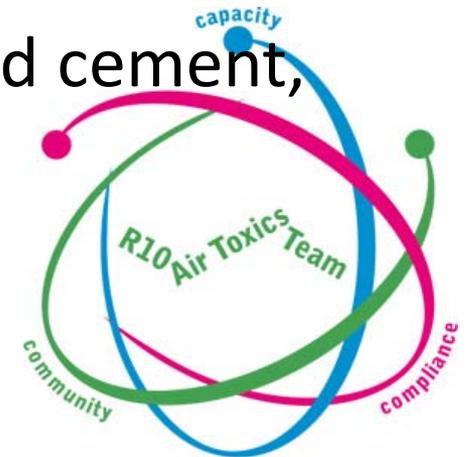
Air Toxics Strategy, cont'd

- Greatest air toxics risks through inhalation (from National Air Toxics Data Assessment – NATA)
 - Acrolein (mobile sources, open burning, combustion)
 - Diesel exhaust (mobile sources)
 - Formaldehyde (mobile sources, combustion, plywood, pulp and paper, oil and gas production and distribution)



Air Toxics Strategy, cont'd

- Greatest risks through non-inhalation pathways
 - Dioxins (backyard burning, incineration, electric utilities)
 - Mercury (coal combustion, Portland cement, incineration, mining)



Current and Future Regulations

- Newest rules with most benefits for national parks
 - Portland cement (9/2009)
 - Boiler
 - Proposed
 - Final Jan 2011
 - Commercial, Industrial, Solid Waste Incinerators (CISWI)
 - Utility (propose & finalize in 2011)



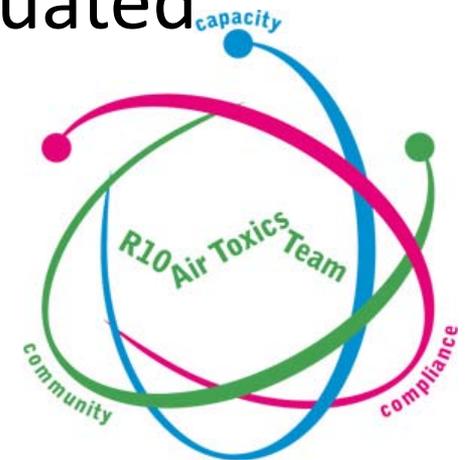
Current and Future...cont'd

- Risk and Technology Review (RTR)
 - CAA requires EPA to review technology-based standards and “revise as necessary” no less than 8 years after promulgation
 - taking into account developments in practices, processes, and control technologies
 - Then EPA to review residual risk
 - If less than 1 E-06, no further work
 - Determine if ample margin of safety is $\leq 100 \text{ E-06}$



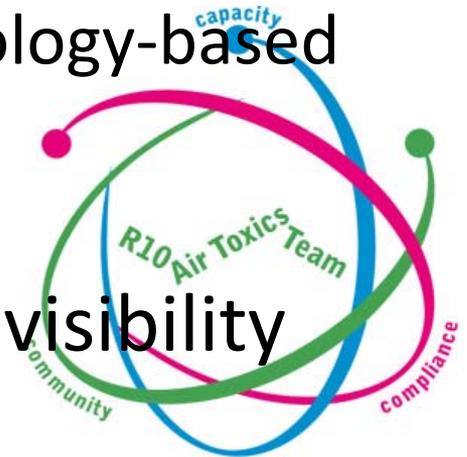
Current and Future...cont'd

- Refinery rules underway
- Several HCl and decorative chromium plating rules just proposed
- Pulp and paper sector being evaluated



Conclusions

- For regulating air toxics in national parks, no direct rules
- Section 112 of CAA that governs air toxics focuses on human health protection
 - EPA addresses that through technology-based standards
 - Then RTR
- There are regulations to prevent visibility impairment in parks



What Questions Do You Have?

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