

US EPA ARCHIVE DOCUMENT

The National Air Toxics Assessment

ORD Air Toxics Research

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Science Advisory Board Review
March 20, 2001

Emissions

- **Modal Emissions Models**
- **Ambient Emission Factors**
 - **Emission Control and Pollution Prevention**
- **Methods for Indoor Emissions**
 - **Penetration**
 - **Interaction of Indoor Pollutants**
 - **Risk Reduction of Pollution Prevention**
- **Combustion Reactions**

Exposure

- **Mobile Source Emissions**
- **Air Quality Modeling**
- **Air Chemistry**
- **Human Exposure**

Dose to Target Tissue

- **Biomarkers of Effect**
- **Exposure-Dose-Response**
 - ◆ **Physiologically-Based Pharmacokinetic Models**
 - **Route-to-Route**
 - **Animal to Human**
 - ◆ **Mode-of-Action**
 - **Metabolic Activation Pathways**
 - ◆ **Harmonization (Goal 8)**

Health Effects

- **Integrated Risk Information System**
- **Test Rule Protocols and Data**
- **Concentration x Time Quantitative Models**
- **Susceptibility Factors**
 - **Genetic Polymorphisms**
 - **Age**
 - **Disease**
- **Mixtures**

Risk Characterization

- **Nasal Uptake**
- **Cross-route Dosimetry**
- **Benchmark Dose**
- **Acute Reference Exposure (ARE)**
- **Analysis of Uncertainty and Variability**

ORD Collaborative Research

- Science to Achieve Results (STAR)
- Mickey Leland National Urban Air Toxics Research Center
- National Jewish Medical and Research Center
- Metropolitan Development Association of Syracuse and Central New York
- Center for Air Toxics Metals at the Energy and Environmental Research Center
- Lovelace Biomedical and Environmental Research Institute
- Health Effects Institute