



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Health Risk Assessment (HRA) Guideline Revisions

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Outline

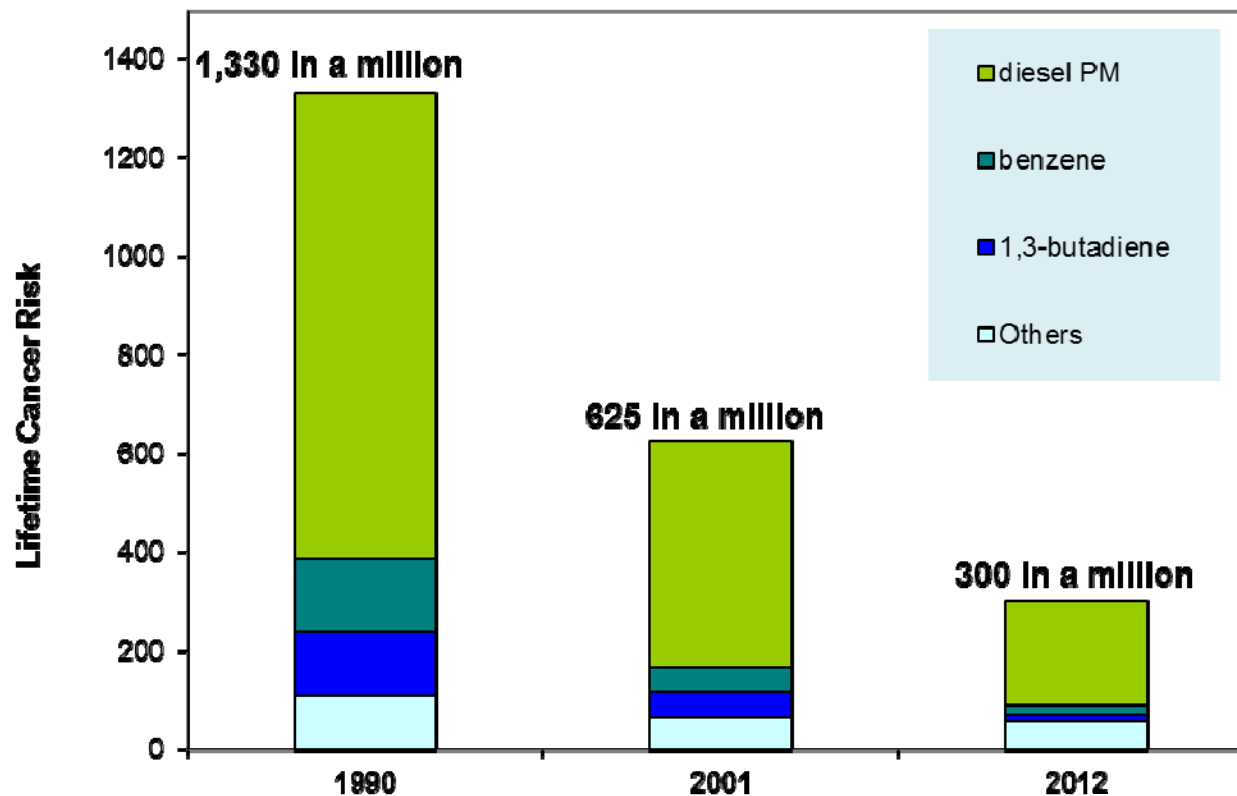
- Background
- History of Health Risk Assessment
Guideline Revisions
- Impacts of Major Revisions
- Potential Implications
- Estimated Schedule

Background

- District's Toxics Control Program
 - Toxics New Source Review – permit new or modified sources
 - Air Toxics Hot Spots (AB2588) – toxic emissions from all existing facilities
 - California Environmental Quality Act (CEQA)
- Cal/EPA's Office of Environmental Health Hazard Assessment (OEHHA) develops Health Risk Assessment (HRA) guidelines
 - As mandated under the Children's Environmental Health Protection Act, current revisions include explicit consideration of children's health protection
- 80% reduction in pollutants and health risk in the Bay Area

80% Reduction of Toxics & Health Risk in Bay Area

Lifetime Cancer Risk from Air Pollutants



Health Risk Assessment Document History

- 2008: Noncancer Reference Exposure Levels (RELs)
Derivation - protection of children's health
- 2009: Cancer Potency Factors Derivation - includes increased sensitivity of early life exposure to carcinogens
 - 10X – 3rd Trimester to Age 2
 - 3X – Age 2 to 16
- 2012: Exposure Assessment Parameters
 - Breathing Rates
 - Resident and worker exposure durations
 - Multi-pathway exposures (e.g., ingestion, dermal, mother's milk)
- 2015: HRA Guidance Manual – health risk estimate calculation methodology

Impacts of Major Revisions

- Increase Risk Estimate:
 - Breathing rates
 - Multi-pathway exposure factors
 - Age Sensitivity Factors (ASFs) – *already in use by BAAQMD*
- Decrease Risk Estimate:
 - Exposure durations (resident – 30 years, worker – 25 years)
- Overall cancer risk may increase by 2 to 5 times for the same emissions

Potential Implications

- Increase Workload for District & Facilities
 - 150 new permit applications per year may require HRAs
 - Facilities may be required to adjust operations to comply
 - 750 existing facilities may require further prioritization analyses
 - 300 existing facilities may require AB2588 HRAs

Estimated Schedule

- **CARB and CAPCOA are currently working on Air Toxics Risk Management Guidance - Implementation Guideline (Q3 – 2015)**
- **HRA Tools – Hot Spots Analysis and Reporting Program (HARP)**
 - CARB updating software package and will provide training
- **BAAQMD currently working on amending Regulation 2, Rule 5 (Q1 – 2016)**