SRP Briefing

OEHHA’s Role in California’s Air Toxics Related Statutes

January 21, 2011
Melanie A. Marty, Ph.D., Chief
Air Toxicology and Epidemiology Branch
Office of Environmental Health Hazard Assessment
mmarty@oehha.ca.gov
SRP Briefing – OEHHA and SRP Responsibilities

- AB 1807 – Toxic Air Contaminants
- AB 2588 and SB 1731 – Air Toxics Hot Spots Program
- SB 25 – Children’s Environmental Health Protection Act
AB 1807 - “Toxic Air Contaminant” Program

- OEHHA conducts Health Effects Assessments for candidate TACs
- Becomes “Part B” of ARB Statement of Reasons for identifying chemical as a TAC
- OEHHA evaluates published and grey literature, presents available information, conducts quantitative risk assessment of chemical.
- SRP reviews Health Effects Assessment
Air Toxics Hot Spots Program
(AB 2588, SB 1731)

- OEHHA adopted Risk Assessment Guidelines for “toxics” emissions from stationary sources subject to AB 2588 (H&SC Section 44360(b)(2))
- Includes Technical Support Documents for Derivation of Noncancer Reference Exposure Levels, Cancer Potency Factors, Exposure Assessment
- Guidance Manual – puts it all together for conducting site-specific risk assessment
Air Toxics Hot Spots

- H&SC Section 44360(b)(2): “The scientific review panel established pursuant to Section 39670 shall evaluate the guidelines adopted under this paragraph and shall recommend changes and additional criteria to reflect new scientific data or empirical studies.”
- SRP reviewed initial risk assessment guidelines (1999-2000)
- SRP reviews revised risk assessment guidelines including any new or revised Reference Exposure Levels and Cancer Potency Factors
Children’s Environmental Health Protection Program (SB25)

OEHHA’s major roles:

• Identify toxic air contaminants which may disproportionately impact children’s health (H&SC Section 39669.5(a))
• Consider infants and children in quantitative risk assessment (H&SC 39660(c)(1)(A))
Requirements of SB 25

OEHHA to consider:

- Exposure patterns of infants and children
- Special susceptibility of infants and children

OEHHA identifies existing TACs that disproportionately impact children (“that may cause infants and children to be especially susceptible to illness”)

- Initial list of 5 required by statute
- Update list periodically

SRP reviews the list and reasons for including the chemical on the list
Identify Toxics for Children

- The five TACs initially identified as differentially impacting children:
  - Diesel PM
  - Dioxins
  - Lead
  - Acrolein
  - PAHs
Identify Toxics for Children

- Additional TACs identified as differentially impacting children:
  - ETS
  - Formaldehyde
  - Acetaldehyde
  - Mercury
  - Manganese
  - Arsenic
Requirements of SB 25

• SB 25 also triggered OEHHA to re-evaluate Air Toxics Hot Spots risk assessment methodologies to ensure methods are child-protective.

• Completed updates of TSDs for Noncancer and Cancer Risk Assessment Methods and RELs for 6 chemicals using new methods
  • Reviewed by SRP in 2008 and 2009
  • Includes weighting by age-at-exposure for carcinogens
  • Includes considerations of toxicokinetic and toxicodynamic differences by age for noncancer RELs
Summary of SRP Responsibilities reviewing OEHHA products

- **SRP Reviews:**
  - Health Effects Assessments of candidate TACs
  - Updates to list of TACs that disproportionately impact children.
    - Through TAC listing process (ETS) and through new and revised Reference Exposure Levels and Cancer Slope Factors.
  - Updates to Risk Assessment Methodologies used for quantitative risk assessment under the Air Toxics Hot Spots Act
OEHHA work in progress for SRP review

Risk Assessment Guidelines
- Update to dioxin TEFs (sent to Panel)
- Revision to an Appendix of the TSD for Cancer Slope Factors
- Reference Exposure Levels
- Caprolactam (sent to Panel)
- Ni, TDI, MDI (Spring, 2011)
- Exposure Assessment – additional considerations for infants and children (to the Panel in 2011)
- Risk Assessment Guidance Manual – “how-to” combining the use of RELs, cancer potency factors and exposure assessment into a guidance manual for use in Hot Spots program. (to the Panel in 2011)