Proposed Risk Management Guidance for Stationary Sources of Air Toxics

Air Resources Board Meeting
July 23, 2015
75% reduction in air toxics statewide since 1990
Risk assessment and risk management

• Risk Assessment
  – Characterize potential cancer and noncancer health impacts of air toxics

• Risk Management
  – Evaluate and implement control strategies to reduce exposure to air toxics

• Risk assessment provides the potential health impacts used in risk management decisions
Office of Environmental Health Hazard Assessment actions

• Updated risk assessment guidance
  – New studies on childhood sensitivity
  – New data on exposure

• Impacts of the updates
  – Cancer risk estimates are likely to increase for most sources
  – Greater responsibilities for facilities and agencies to notify public and reduce risk
  – Districts/ARB will re-evaluate toxics programs
Key factors affecting new inhalation risk estimates

Increases Risk Estimates
- Age Sensitivity Factors
- Daily Breathing Rate

Decreases Risk Estimates
- Fraction of Time at Home
- Exposure Duration
- Spatial Averaging

No Change
- Cancer Potency Factors

Overall Increase Approximately 1.5 to 3x
Programs affected by OEHHA Risk Assessment Guidelines

- **District Permitting**
- **Identification & Control Program**
  - Toxics Best Available Control Technology (TBACT)
- **Hot Spots**
  - Health Risk Assessment, Public Noticing, and Risk Reduction Audits & Plans
- **CEQA**
  - Air Toxics Analysis for Construction and Operational Phases
Risk Management Guidance - elements

• Risk communication

• Recommendations for District permitting, Hot Spots program, and breathing rate inputs

• ARB and District work plans for mobile and stationary sources
Risk Management Guidance - public process

• Weekly meetings with Districts

• Public workshops
  – Sacramento
  – Diamond Bar

• Three CAPCOA/ARB/Industry/Environmental Task Force meetings

• Additional stakeholder meetings
# Recommendations for permitting

## New and modified stationary sources

<table>
<thead>
<tr>
<th>Action</th>
<th>Cancer Risk Action Level (chances per million)</th>
<th>Noncancer Risk Action Level (Hazard Index)</th>
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<tbody>
<tr>
<td>TBACT Required</td>
<td>&gt;1</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Permit Approval</td>
<td>10 to 25</td>
<td>≤1</td>
</tr>
<tr>
<td>Source-Specific Approval/Denial</td>
<td>Less than or greater than permit approval levels based on source-specific considerations</td>
<td>Less than or greater than permit approval levels based on source-specific considerations</td>
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# Recommendations for Hot Spots

**Prioritization, public notification, audit & plan**

<table>
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<tr>
<th>Requirement</th>
<th>Cancer Risk Action Level (chances per million)</th>
<th>Noncancer Risk Action Level (Hazard Index)</th>
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<tbody>
<tr>
<td>Prioritization</td>
<td>Update CAPCOA Prioritization Score Procedure/Guideline</td>
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<tr>
<td>Notification</td>
<td>Update CAPCOA Guideline; TBD by Districts</td>
<td></td>
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<tr>
<td>Risk Reduction Audit &amp; Plan</td>
<td>TBD by Districts; Level not to exceed 100</td>
<td>TBD by Districts; Level not to exceed 10</td>
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Recommended breathing rate policy

Inputs on health risk assessments

• Uses new science on childhood sensitivity

• Recommends use of combination of 95\textsuperscript{th} and 80\textsuperscript{th} percentile breathing rates
  – 95\textsuperscript{th} percentile (high-end) breathing rate for last trimester to age 2
  – 80\textsuperscript{th} percentile breathing rate for other age groups
District risk management activities

• CAPCOA updating Hot Spots prioritization and notification guidelines

• Individual districts
  – Evaluating risk management methodologies and potential impacts
  – Considering current programs, rules guidelines, and policies

• Work with stakeholders through a public process if changes are needed
ARB tools to reduce risk

- Air Toxic Control Measures (ATCMs) & rules
- Partnerships with ports, rail, and industry
- Incentives
- Enforcement
ARB risk management work plan

• Release Hotspots Analysis and Reporting Program (HARP) software (March 2015)

• Update existing Risk Management Guidance w/CAPCOA (Today)

• Update the Hot Spots Emission Inventory Criteria and Guidelines/Fee Rule

• Develop Industrywide Guidelines w/CAPCOA
  — gasoline dispensing facilities, emergency standby diesel engines
ARB work plan, continued

• Screen and assess existing ARB air toxics-related regulations

• If needed, reevaluate existing regulations
  — Focus on those with risk-based provisions to ensure they remain health protective (e.g., chrome plating)

• Develop further controls for mobile sources via Sustainable Freight Strategy, State Implementation Plan, and Scoping Plan

• Update the Land Use Handbook
## ARB milestones

<table>
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<tr>
<th>Timeframe</th>
<th>Milestone</th>
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| 2015      | • HARP software release and training  
           | • ARB/CAPCOA Risk Management Guidance  
           | • Short Lived Climate Pollutant Plan |
| 2016      | • Chrome ATCM Amendments  
           | • Portable Diesel Engine ATCM Amendments  
           | • Industrywide Guidelines (gas stations; emergency standby engines)  
           | • Hot Spots Emission/Fee Amendments  
           | • Land Use Handbook Update  
           | • State Implementation Plan  
           | • Sustainable Freight Strategy |
| 2017      | • Report on screening of other existing ATCMs |
Issues raised in public comments

• Expand risk communication

• Increase health protection

• Clarify CAPCOA Hot Spots prioritization and notification activities

• Consider diesel exhaust progress

• Provide opportunities for public involvement
Staff recommendations

• Adopt Resolution 15-4 approving the ARB/CAPCOA Risk Management Guidance for Stationary Sources of Air Toxics

• Continue engagement with Districts and stakeholders on action items