

Air Toxics Program

Board of Directors Santa Barbara County Air Pollution Control District

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Overview

- Background
- Air Toxics
- Health Risk
- Toxics Regulations
- Risk Management
- New Source Review Health Risk Program
- Accomplishments
- Work in Progress
- Next Steps

Background

- Children's Environmental Health Protection Act
- OEHHA revising health risk assessment Guidance Manual
- Risk may increase



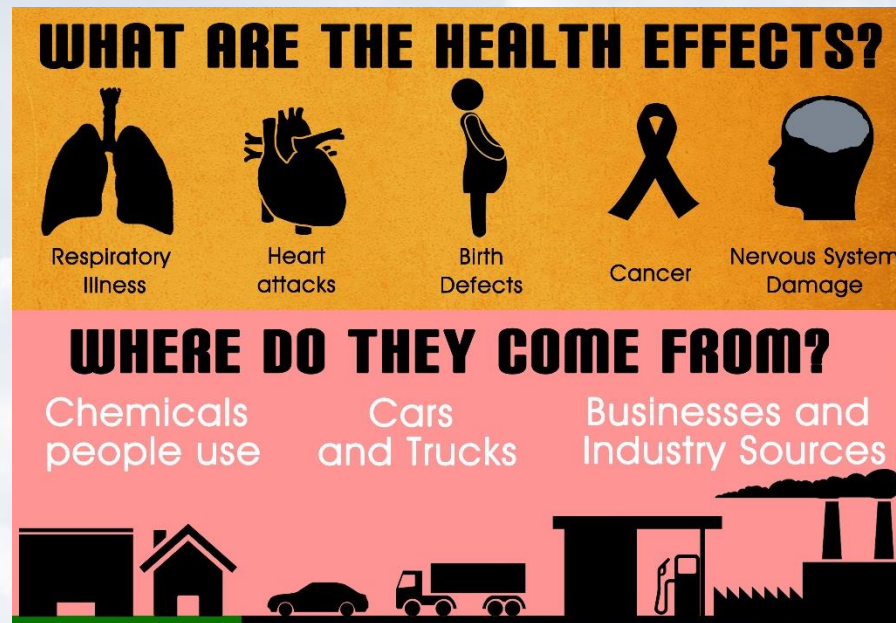
Air Toxics

- Air Toxic: Chemical in the air with potential to cause health problems



Health Risk

- Health Risk: Increased likelihood that exposure to air toxics will result in negative health effects



Health Risk

- Cancer risk
 - Expressed as probability: number of chances-in-a-million
- Non-cancer risk
 - Chronic
 - Acute
 - Expressed as Hazard Index (HI)
 - Hazard Index = $\frac{\text{Predicted Air Toxic Exposure}}{\text{Acceptable Air Toxic Exposure}}$

Health Risk Assessments

- OEHHA *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments*
- ARB Hotspots Analysis Reporting Program (HARP)

The screenshot shows the 'Air Dispersion & Health Risk Analysis' software window. The title bar is green with the text 'Air Dispersion & Health Risk Analysis'. The menu bar includes 'File' and 'Help'. On the left is a tree view with the following items: 'Calculate Risk' (expanded), 'Select Risk Scenario' (highlighted), 'Select Pathways to Evaluate', 'Press Calculate', 'View Risk Results', 'Spatial Averaging Risk (Optional)', 'Create Risk Contours', and 'Export Mandatory Reports & Files'. Below the tree view is a vertical toolbar with icons for 'Air Dispersion', 'Import/Calc GLCs', and 'Risk Analysis'. The main area is titled 'Select Risk Scenario' and contains four sections: 'Analysis Type' with radio buttons for 'Cancer Risk' (selected), 'Chronic Risk (Non-cancer)', '8-Hour Chronic Risk (Non-cancer)', 'Acute Risk (Non-cancer)', and 'Cancer, Chronic, and Acute'; 'Receptor Type' with radio buttons for 'Individual Resident' (selected), 'Population-Wide', and 'Worker'; 'Exposure Duration' with radio buttons for '70 Year', '30 Year' (selected), '25 Year (Worker)', '9 Year', and 'User Defined (Tier 2)' (with a dropdown set to '70'); and 'Intake Rate Percentile' with radio buttons for 'OEHHA Derived Method' (selected), '95th (High End)', '65th (Mean)', 'Risk Management Policy (RMP) - *Inhalation Only*', and 'RMP using the Derived Method'. Each section has a 'Help me choose' link at the bottom.

Toxics Regulations

- State:
 - Air Toxics "Hot Spots" Information and Assessment Act
 - Airborne Toxic Control Measures (ATCMs)
- Federal:
 - National Emission Standards for Hazardous Air Pollutants (NESHAPs)

Air Toxics “Hot Spots” Information and Assessment Act (AB 2588)

1. Identify amount of air toxics emitted by facilities;
2. Estimate potential health risk for members of public exposed;
3. Inform individuals exposed to significant health risk; and
4. Protect the public health by reducing significant health risks



Risk Management

- Board actions:
 - Adopted AB 2588 public notification thresholds in 1993
 - Adopted AB 2588 risk reduction thresholds in 1998
- Health Risk Significance Thresholds:
 - Cancer risk ≥ 10 in a million
 - Chronic risk HI > 1
 - Acute risk HI > 1

New Source Review Health Risk Program

- Health risk evaluated during permitting
- Goal: Prevent a new/modified facility from creating a significant risk to community
- Uses significance criteria established by the AB 2588 program



Accomplishments

- AB 2588: 100% reduction of significant risk facilities
 - 1991: 51 significant risk facilities
 - 2015: 0 significant risk facilities
- New Source Review Health Risk Program:
No additional significant risk facilities created since 1991

Work In Progress

- Dedicated resources to Air Toxics Program
- Formed South Central Coast air toxics team
- Evaluating impacts of revised Guidance Manual for health risk assessments
- Updating air toxics webpage



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air toxics and health »



I want air toxics
information for
businesses »

Next Steps

- Ascertain how best to execute revised Guidance Manual
- Work with:
 - South Central Coast air toxics team
 - California Air Pollution Control Officers Association (CAPCOA)
- Return to your Board with findings at a future date

Questions?

