



Scientific Review Panel
on Toxic Air Contaminants Meeting

**Air Resources Board's
Air Toxics Program**

January 21, 2011
Berkeley, California

California Environmental Protection Agency



California Air Resources Board



Outline

- Air Resources Board's Air Toxics Program
- Identification Program Plan
- Priority Setting Methodology
- Methodology Revision
- Next Steps



Air Toxics Program is Multi-faceted

- Toxic Air Contaminants Program
 - Assembly Bill 1807, Senate Bill 25
- Air Toxic Hot Spots Program
 - Assembly Bill 2588, Senate Bill 1731



Air Toxics Program

TAC Program

- TAC identification
 - Risk assessment
 - SB 25 requirements to consider exposure patterns and health effects of infants and children
- TAC control
 - Needs assessment
 - Risk management
 - SB 25 requirements to review/revise control measures to adequately protect infants and children or adopt new measures

Air Toxics Hot Spots Program

- Emissions inventory
- Identify high risk facilities
- Notify public of health risk
- Requires reduction of significant risks

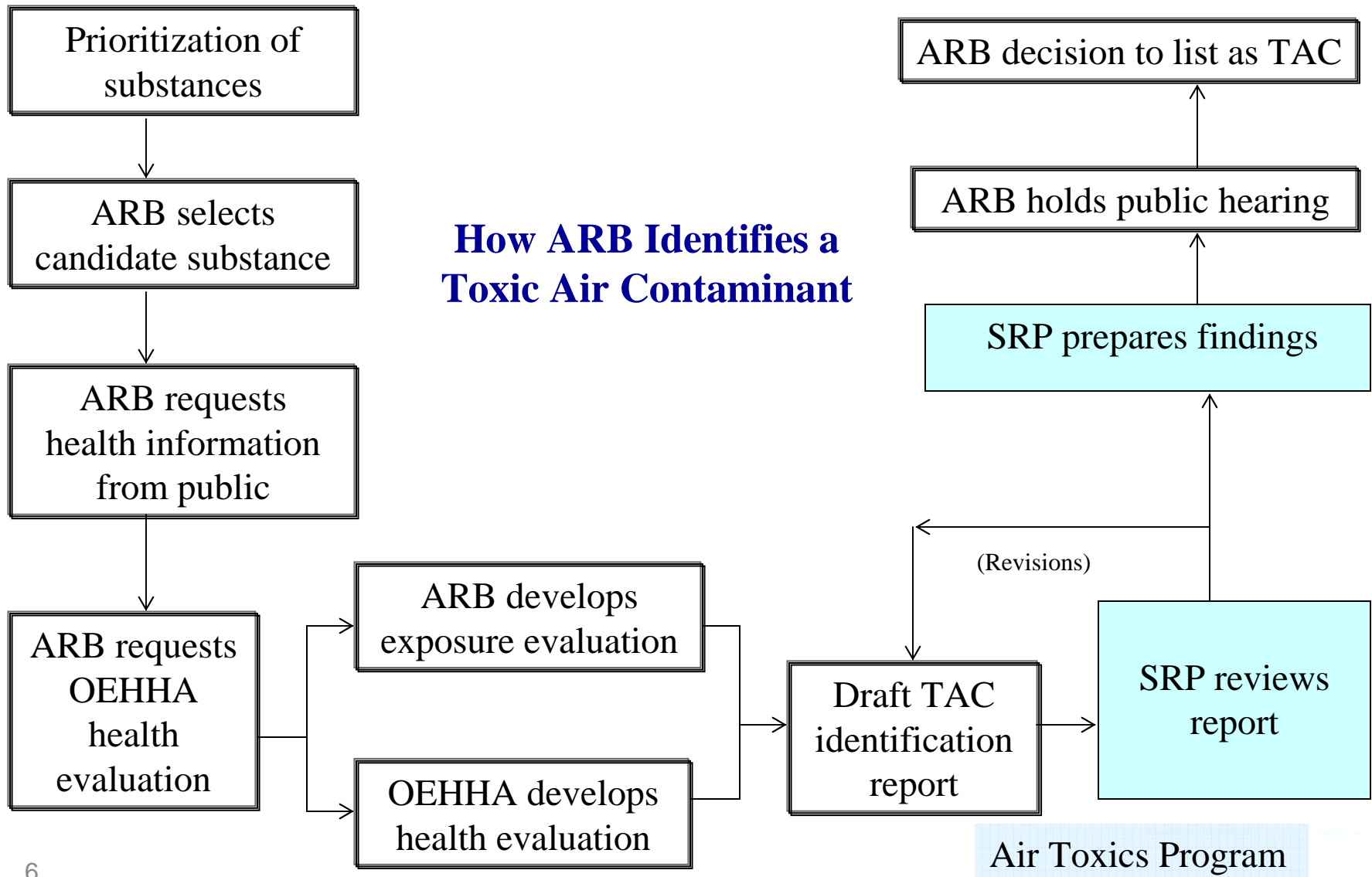


Definition of a TAC

“...an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health.”

Health and Safety Code Section 39660 et. seq.

SRP's Role in TAC Identification





SRP's Role in TAC Identification Under Health and Safety Code

Health and Safety Code Section 39661(b)

- SRP reviews TAC identification report

“The panel shall review the scientific procedures and methods used to support data, the data itself, and the conclusions and assessments on which the report is based.”
- Submit findings to the state board

“The panel shall submit its written findings to the state board within 45 days after receiving the report. The panel may, however, petition the state board for an extension of the deadline, which may not exceed 15 working days.”

Health and Safety Code Section 39661(c)

- SRP report revision

“If the scientific review panel determines that the health effects report is not based upon sound scientific knowledge, methods, or practice, the report shall be returned to the state board.”



TAC Identification

- Comprehensive risk assessments for 23 TACs *

Acetaldehyde	Ethylene Dibromide	Ethylene Dichloride
Asbestos	Ethylene Oxide	Carbon Tetrachloride
Benzene	Formaldehyde	Hexavalent Chromium
Chloroform	Vinyl Chloride	Cadmium Compounds
1,3-Butadiene	Methylene Chloride	Nickel Compounds
Inorganic Lead	Perchloroethylene	Inorganic Arsenic
Trichloroethylene	Envir. Tobacco Smoke	
Benzo[a]pyrene	Dibenzo-p-dioxins and Dibenzofurans	
Particulate Emissions from Diesel-Fueled Engines		

* Peer reviewed by SRP

- Over 200 substances designated as TACs
 - AB 2728 required 189 HAPs to be TACs



Adopted TAC Control Measures

- Following their identification as TACs need for control is assessed
- Control measures reduce regional, community and near source health risks
- Many control measures have been adopted:
 - Diesel particulate emissions from motor vehicles and equipment, portable engines, stationary engines, marine vessels, shore power, drayage trucks, school bus and commercial motor vehicle idling
 - Gasoline service stations
 - Gasoline, diesel and marine fuels
 - Chrome plating and anodizing
 - Onboard incineration on cruise ships and oceangoing ships
 - Medical waste incinerators
 - Rock used in surfacing applications
 - Asbestos construction grading
 - Non-ferrous metal melting
 - Automotive consumer products
 - Composite wood products
 - Outdoor residential waste burning
 - Dry cleaners
 - Sterilizers and aerators
 - Cooling towers
 - Landfills



Major Elements of TAC Identification Program Plan

- Apply prioritization methodology
- Periodically update list of candidate TACs
- List of top priority candidate TACs
- List of substances recommended for formal TAC identification
- List of formally identified TACs needing health values



How are Candidate TACs prioritized?

- Apply methodology considering
 - health effects
 - emissions
 - exposure
 - usage
 - persistence in the atmosphere
 - ambient concentration
- Summarizes into numeric ranking
- Screening tool to rank candidate TACs
- Identify need for health values developed for formally listed TACs



Planned Revision to Prioritization Methodology

- Approved by SRP in 1990 and revised in 1993
- Rationale for proposed revisions
- SRP involvement to date
 - SRP meeting in December 2007
 - SRP lead meeting in May 2009
- Revisions focus on:
 - Point distribution
 - New evaluation criteria
 - Children's health effects
- Proposed revisions nearly complete



Next Steps

- SRP review of prioritization methodology
 - Identify SRP leads
 - Draft methodology for SRP lead review
- Utilize methodology and finalize TAC identification program plan
 - List of top priority candidate TACs
 - List of TACs needing health values
- SRP review of final report and public comments/responses
 - Discuss at public SRP meeting