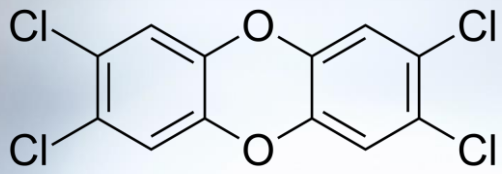
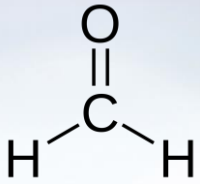
California's Air Toxics Program Update

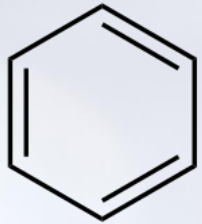
September 24, 2020

Air Toxics in California

- Emitted from stationary, mobile, and area sources
- Air pollutants which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health are called **Toxic Air Contaminants**
- Addressed by California's Air Toxics Program







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Examples of Toxic Air Contaminants

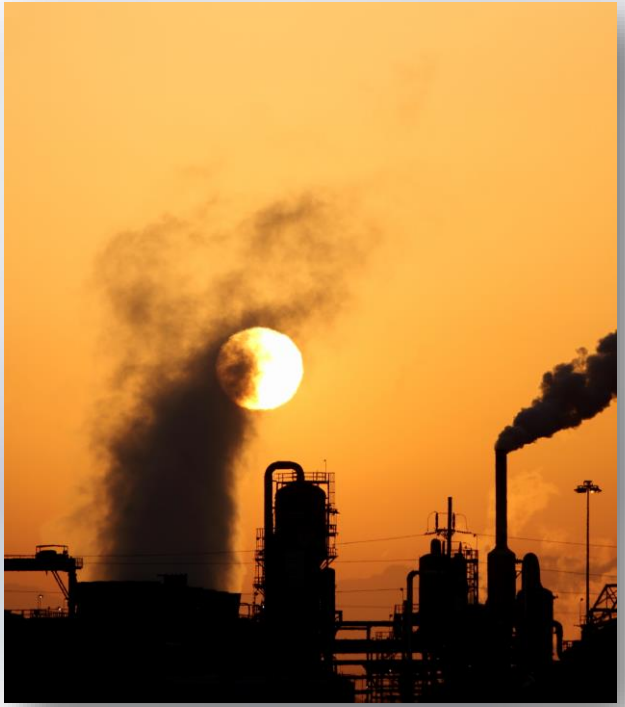
Formaldehyde from
Composite Wood Products

Hexavalent Chromium from
Chrome Plating Operations

Diesel Particulate Matter from
Stationary & Portable Diesel Engines

California's Air Toxics Program

- Identifies and controls air toxics
- Informs public of significant toxics exposures and reduces these risks
- Addresses health impacts to communities, children, and other sensitive receptors
- More stringent than the Federal Air Toxics Program



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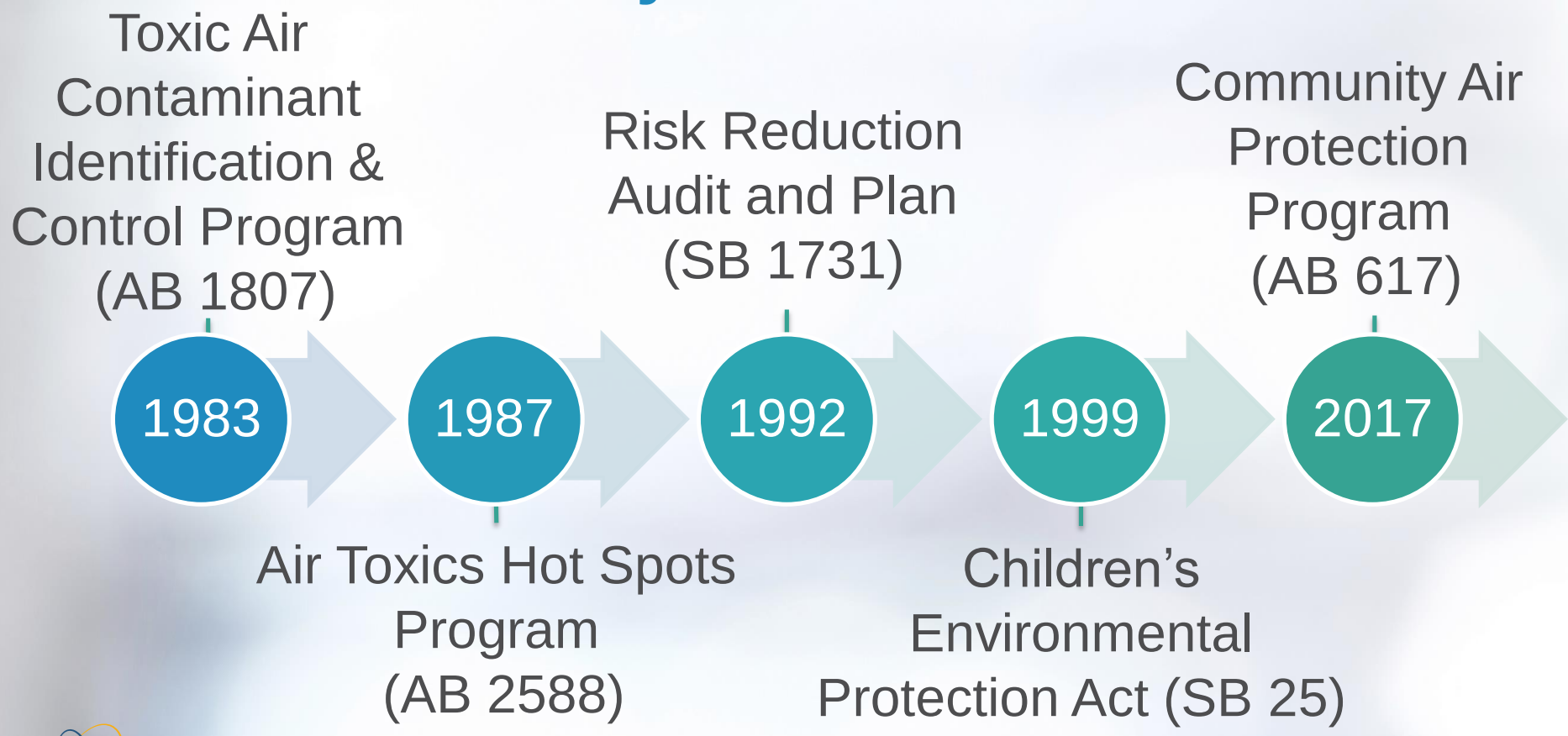
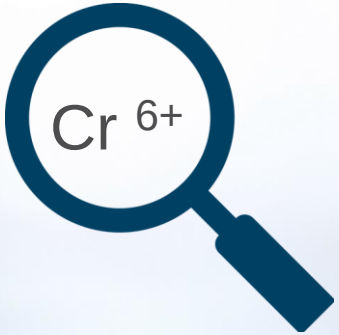
CARB Authority To Control Air Toxics



AB 1807 Toxic Air Contaminant (TAC) Identification & Control Program (1983)

- Two-phase process separating risk identification and risk management

Identification of TACs



Over 200 TACs Identified

Control of TACs

26 Airborne Toxics Control Measures

AB 2588 Air Toxics Hot Spots Program (1987)

"The Public Right to Know"

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SB 25 Children's Environmental Protection Act (1999)

- Review of ambient air quality standards
- Additional air monitoring to assess children's exposure
- Review of airborne toxics control measures
- Updated risk assessment guidelines

AB 617 Community Air Protection Program (2017)

- Reducing harmful air exposures in disadvantaged communities
- Community emissions reduction and monitoring programs
- Enhances public outreach
- Complements Environmental Justice

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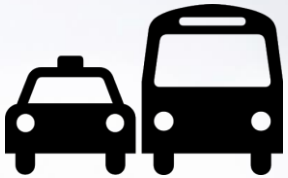
California's Evolving Emphasis on Toxics



1980s — Industrial Sources (e.g., chrome plating)

1990s — Commercial Fuels/Fueling

2000s — Diesel Risk Reduction

2010s — Passenger & Freight Transportation

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Accomplishments to Date

>30,000 sources

Have reduced emissions statewide

Addressing of regional, community & near-source risks

95-99%

Emission reductions through control technologies on a per facility basis

Adoption of motor vehicle & fuel controls to reduce toxics

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Example Regulations Which Have Led to Significant Reductions in Air Toxics

Perchloroethylene from Dry Cleaning Operations

Benzene from Gas Stations

Hexavalent Chromium & Cadmium from Automotive Coatings

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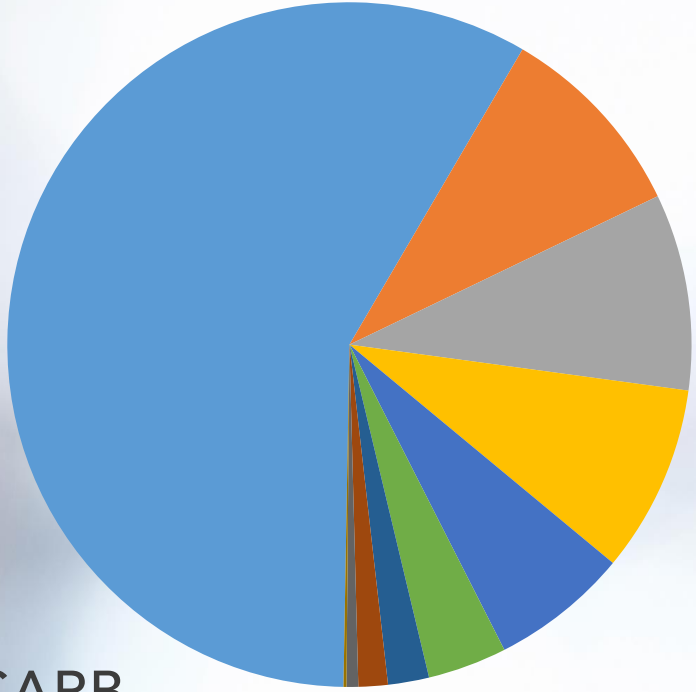
Top 10 Identified Air Toxics

Relative Contributions to Statewide Cancer Risk in 2017



- Diesel Particulate Matter
- Benzene
- Carbon tetrachloride
- Formaldehyde
- 1,3-Butadiene
- Hexavalent chromium
- Acetaldehyde
- Methylene chloride
- Ethyl benzene
- Perchloroethylene

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What is Localized Risk?

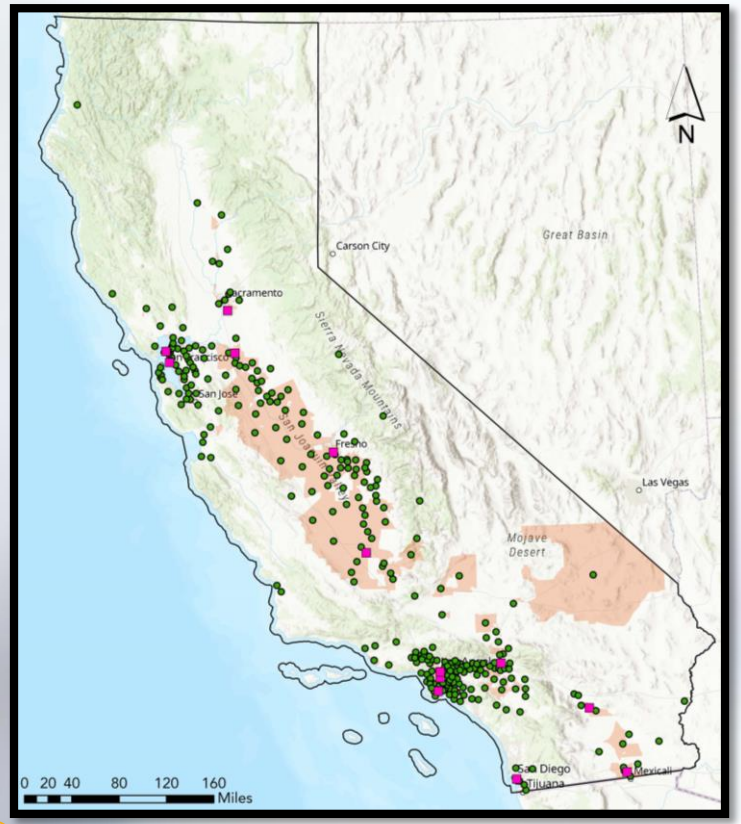
Examples of Air Toxic Sources in Communities

Auto Body Shops ● Commercial Cooking ● Freight Activities ● Metal Processing Operations ● Pesticide Applications ● Refineries ● Residential Burning ● Welding Operations

Examples of Air Toxics That Can Drive Localized Risks

Benzene ● Diesel Particulate Matter ● Formaldehyde ● Hexavalent Chromium & Other Metals

More Work Needs To Be Done In Communities



- AB 617 Selected Communities (Years 2018 & 2019)
- AB 617 Nominated Communities
- SB 535 Disadvantaged Community Area

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Air Toxics Program

2020s & Beyond

1. Identify what's driving community exposure
2. Improve tools to guide decision-making
3. Reduce emissions from sources of greatest concern

1 Identify What's Driving Community Exposure

- Community engagement
- Community-based air toxics monitoring
- Neighborhood-scale emissions inventories
- Community Emission Reduction Plans and Monitoring Programs
- Unique localized issues
- New and emerging air toxics and uncontrolled sources

2 Improve Tools to Guide Decision-Making

- Expanding health analyses
- Enhancing emissions inventory and reporting
- Evaluating air toxics monitoring network
- Expanding meteorological data availability
- Expanding source testing capabilities

3 Reduce Emissions from Sources of Greatest Concern

- Prioritizing pollutants and sources by:
  - Risk of harm to public health, emissions, exposure, usage, persistence, and concentrations in communities
- Reducing emissions through:
  - Airborne Toxic Control Measures, Incentives, Guidance Documents, Land Use, and Enforcement

Upcoming Stationary Air Toxics Related Actions

Amendments to Emissions Inventory and Criteria Guidelines Regulation and Criteria and Toxics Reporting Regulation	November 2020
Gas Station Industrywide Technical and Supplemental Policy Guidance	Early 2021
Chrome Plating Airborne Toxics Control Measure (ATCM) Amendments	Late 2021
Composite Wood Products ATCM Amendments	2022

Conclusion & Staff Recommendations

- California's Air Toxics Program has been effective at reducing air toxic emissions statewide
- More needs to done to address air toxics, with a focus on sources of concern identified by communities
- Staff Recommendations:
  - Adopt Resolution 20-25 directing staff to move California’s Air Toxics Program forward
  - Future Board updates on implementation