



*Public Workshop
Draft Report*

Indoor Air Pollution in California

Assembly Bill 1173 (Keeley, 2002)

July 27, 2004

California Environmental Protection Agency
Air Resources Board



Overview

- Requirements of AB1173
- Report content
- Draft report findings
- Options for mitigation
- Schedule
- Opportunity for public participation



Requirements of AB 1173

- Prepare comprehensive report on indoor air pollution
- Consult with other state agencies and stakeholders
- Include specific topics
- Submit for external scientific peer review
- Review at public meeting
- Deliver to Legislature



Report Content

- Best scientific information available on indoor pollutants
- Potential indoor sources, exposure, and adverse health effects
- Existing regulations and practices
- Options for reducing exposures and prioritization based on health
- Options for schools



Report Findings

- Indoor air pollution poses a significant health risk
- Numerous indoor sources
- Indoor concentrations can be high
- People spend most of their time indoors
- Children are especially vulnerable
- No comprehensive plan to address indoor air pollution



Health Impacts

- Asthma
- Cancer
- Irritant effects
- Premature death, increased disease



Pollutants and Sources

- Organic chemicals Building materials, consumer products
- Formaldehyde Composite wood products
- PM Cigarettes, wood stoves, cooking
- ETS (second-hand smoke) Cigarettes, cigars
- NO₂ and CO Gas appliances



Indoor Concentrations and Exposure

- Outdoor pollutants contribute to indoor pollutant concentrations through air exchange.
- Indoor concentration may exceed health-based guideline levels.
- Due to proximity to sources, personal exposure levels often are greater than concurrently measured indoor and outdoor concentrations.



Costs of Indoor Pollution in California*

(\$ billion/year)

Premature death	\$ 26
Medical costs	\$ 0.6
Lost productivity	\$ 8.5
Total cost	\$ 35

*currently quantifiable



Existing Regulations

- Workplace standards
- Ventilation requirements
- Anti-smoking law
- Ambient air quality standards
- Consumer product standards
- Local wood burning ordinances



Existing Guidelines

- Indoor Air Concentrations
 - Acute and chronic RELs
 - Indoor Air Quality Guidelines
- Emission limits
 - Section 01350
 - Collaborative for High Performance Schools - Best Practices Manuals
 - Industry and Professional Guidelines



Methods to Reduce Indoor Air Pollution

- Reduce at source
- Ventilation
- Public education
- Air cleaning devices
- Building operations and maintenance



Prioritization of Indoor Sources

High priority

- Building materials & furnishings
- Environmental tobacco smoke
- Combustion appliances
- "Air cleaners" that generate ozone

Medium Priority

- Consumer products
- Architectural coatings
- Personal care products
- Office equipment



Options to Mitigate Indoor Air Pollution

- Create a California management system for indoor air quality
- Authorize agencies to establish emission limits
- Require emissions testing
- Implement recommendations for schools from California Portable Classroom Study
- Develop indoor exposure standards



Options to Mitigate Indoor Air Pollution (continued)

- Reduce children's exposure to ETS
- Amend building codes
- Fund an education program for health professionals and facility managers
- Conduct additional research
- Fund an Innovative Clean Air Technology program to develop and commercialize technologies that improve IAQ



Schedule



July 2004	Workshop
Aug. 2004	Comments due on Draft Report
Fall 2004	Scientific peer review; public review and comment
Dec. 2004	Revised report to Board
2005	Deliver to Governor and Legislature



Public Participation

- Updates provided on website :
<http://www.arb.ca.gov/research/indoor/ab1173/ab1173.htm>
- Listserv signups at :
<http://www.arb.ca.gov/listserv/ab1173/ab1173.htm>
- Comments due Aug. 20, 2004
Submit by e-mail to Dorothy Shimer at
ab1173@listserv.arb.ca.gov



Thank you

