

Scientific Review Panel on Toxic Air Contaminants

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Chairman

AB 1807

Toxic Air Contaminants 1983

- Toxic air contaminant means an air pollutant which may cause or contribute to an increase to mortality or serious illness, or which may pose a present or potential hazard to human health
- Scientific Review Panel: A nine member Scientific Review Panel on Toxic Air Contaminants shall be appointed to advise the State Board and the Department of Pesticide Regulation

Technical Peer Review

- The values below are used on a national and international basis for public health and policy purposes-They have had considerable impact. California is unique in having made these determinations.
- 29 toxic air contaminants (TACs)
- 189 Hazardous Air Pollutants (Clean Air Act Amendments of 1990) identified as TACs
- 299 health values for hazardous air pollutants as TACs
 - 51 acute reference exposure levels
 - 80 chronic reference exposure levels
 - 168 unit risk values

Technical Peer Review

Prioritization of TACs as disproportionately impacting children
- **6 established to date**

- MTBE
- Health risk assessment guidelines for Hot Spots Program
- Formaldehyde/benzene petition
- Litigation over diesel particulate risk assessment

Children's Environmental Health

SB 25 (1999) requires OEHHA to assess whether current air pollution standards are protective of infants and children.

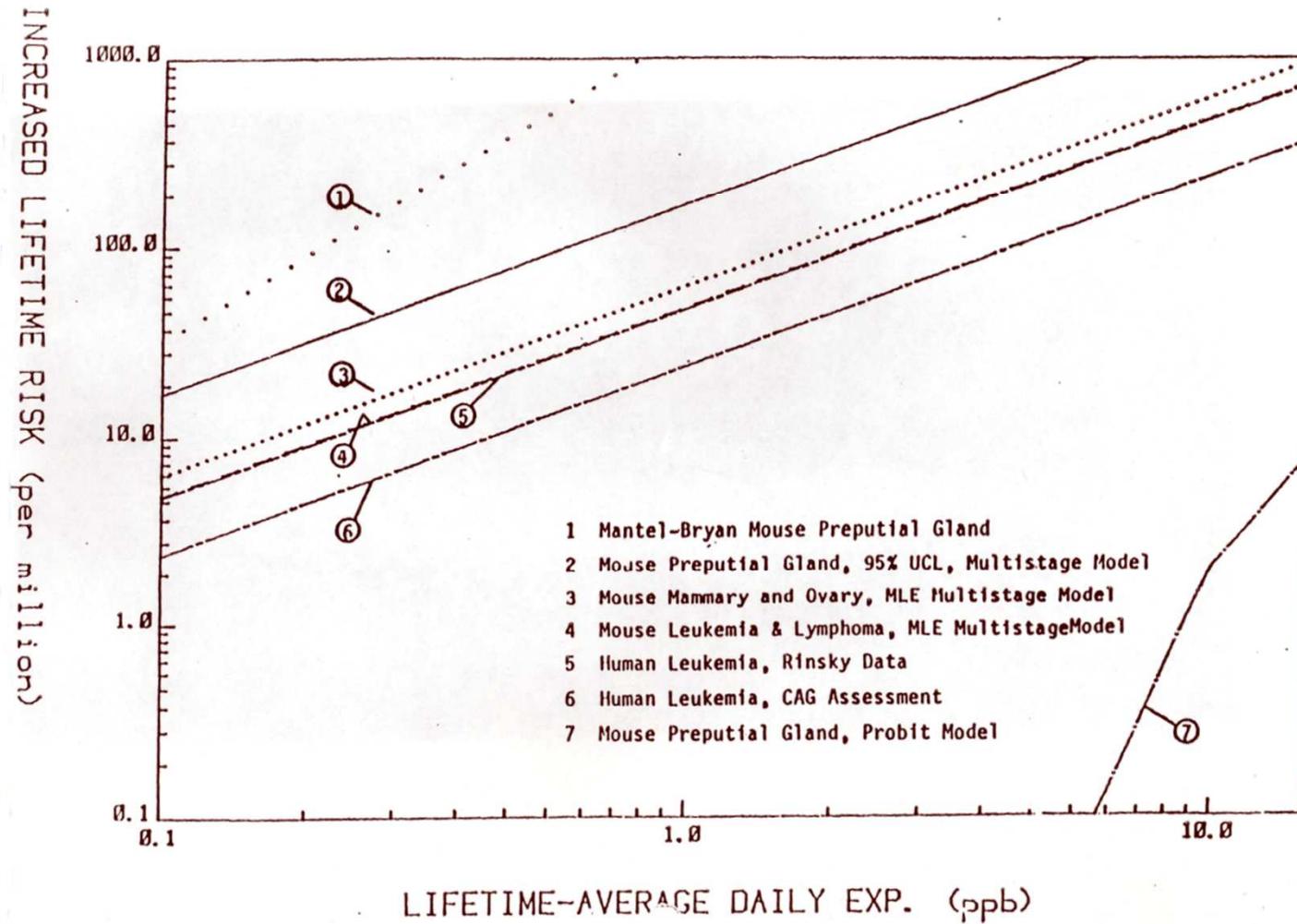
- Requires OEHHA to ascertain which TACs and criteria pollutants differentially impact infants and children.
- Requires risk assessment of TACs and criteria pollutants to specifically account for children.
- Assessment to include exposure, sensitivity, impacts of multiple chemical exposure.

Highly relevant TAC examples

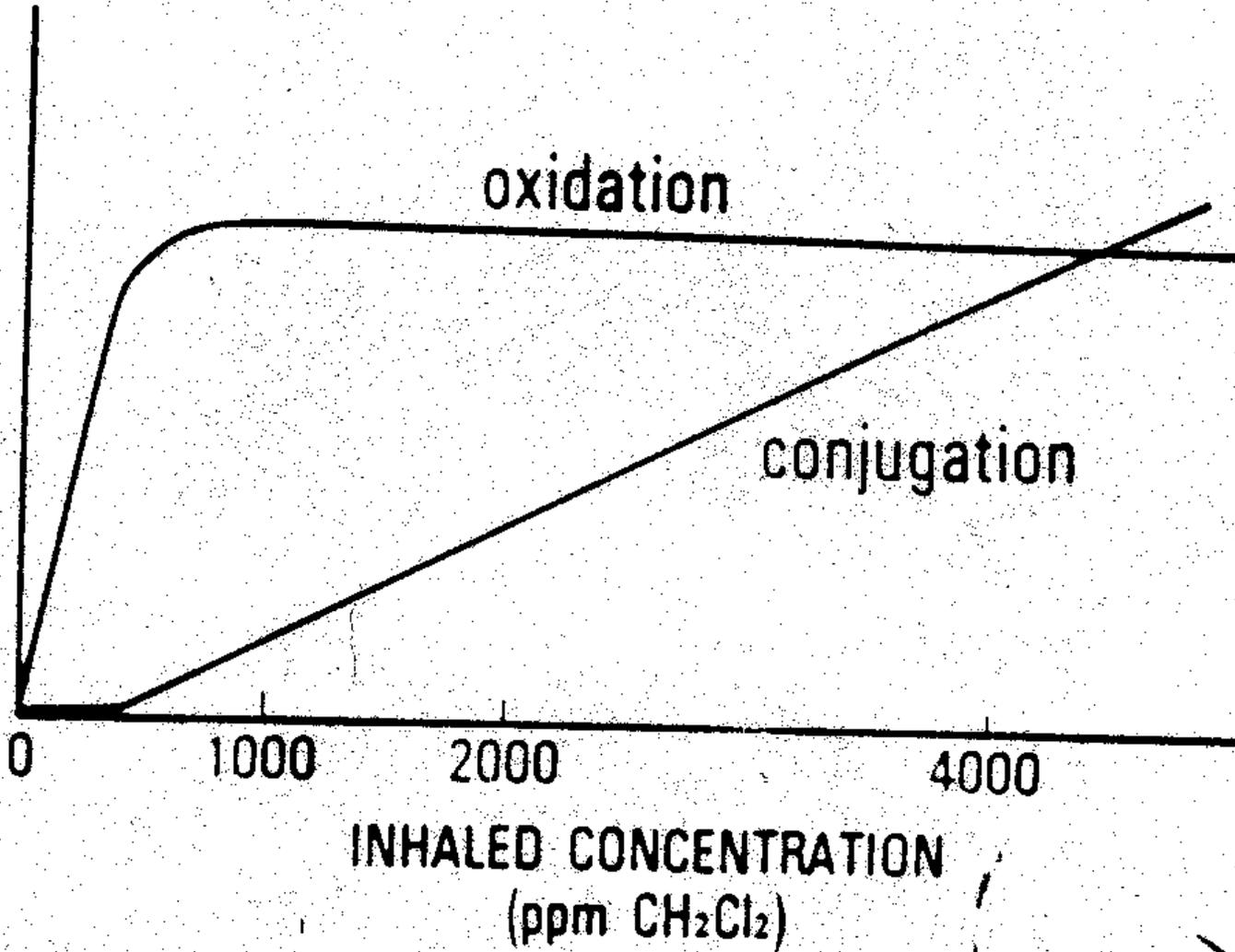
- Benzene
- Methylene chloride
- Perchloroethylene
- Diesel particulate
- Metam sodium

Figure A

CANCER RISK FROM BENZENE



RATE OF METABOLISM



oxidation

conjugation

INHALED CONCENTRATION
(ppm CH_2Cl_2)

Perchloroethylene

- ATCM amendments
- Prohibit installation of new Perc dry cleaning machines after 2004
- Eliminate the use of existing Perc machines at co-residential facilities (2010)
- Require converted machines be removed from service (2010)
- Require all machines be removed when they become 15 years old or by 2023



Los Angeles Times

THURSDAY, APRIL 23, 1998

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Diesel Exhaust Found to Pose Strong Cancer Risk

■ **Air:** State must decide whether to declare fumes a toxic threat requiring safeguards. Business leaders attack report.

Occupational diesel exposure and lung cancer

- “Our observation of lung cancer risk [*in railroad workers*] is similar to the risk noted by others in the literature. **In more than 35 studies** of workers with occupational exposure to diesel exhaust, **excess risk of lung cancer** is consistently elevated by 20–50%.”
- “These results indicate that **the association between diesel exhaust exposure and lung cancer is real.**”



The Future

- What compounds should form the highest priorities for the future?
- Children's protection
- Pesticides
- Global Climate Change