

MEMORANDUM

TO: Winston H. Hickox
Agency Secretary

FROM: Joan E. Denton, Ph.D.
Director

DATE: February 23, 2000

SUBJECT: ADOPTION OF CHRONIC REFERENCE EXPOSURE LEVELS FOR
AIRBORNE TOXICANTS

In accordance to Health and Safety Code, Section 44300 *et seq.* (The Air Toxics Hot Spots Information and Assessment Act, AB 2588, Connelly as amended by SB 1731, Calderon), the Office of Environmental Health Hazard Assessment (OEHHA) hereby adopts Chronic Reference Exposure Levels (REL) for 22 chemicals (attachment).

OEHHA is mandated to develop risk assessment guidelines, which will be used by state and local agencies to implement the Air Toxics Hot Spots program. Development of these guidelines is proceeding in stages. There are four technical support documents describing the scientific basis for: acute RELs, chronic RELs, cancer potency factors, and exposure assessments. The fifth document is a guidance manual based on the four technical support documents. All four technical support documents have undergone the public review stages.

This document on RELs is the third document that has completed the peer review stage, and the third to be adopted.

A chronic REL is an airborne level that would pose no significant health risk to individuals exposed to that level for an indefinite period of time. RELs are based solely on health considerations and are developed from the best available data in the scientific literature. OEHHA has completed a technical support document, *Air Toxics Hot Spots Program Risk Assessment Guidelines. Part III. The Determination of Chronic Reference Exposure Levels for Airborne Toxicants*. It provides the methodology used to develop the chronic RELs and a summary for each REL, which describes its chemical and physical properties, its acute health effects, and the data used to calculate the REL. This document underwent internal peer review, two public workshops, and two public comment periods. The document was peer reviewed by the Scientific Review Panel on Toxic Air Contaminants and was discussed at their meetings in September,

Winston H. Hickox

February 23, 2000

Page 2

October, and November 1999. At its February 1, 2000 meeting, the Panel endorsed the document and the first 22 RELs. The final document incorporates changes in response to the Panel's comments and will be available on our Web site. Additional chronic RELs will be added after the Panel reviews and approves them.

Should you have any questions, please contact me at (916) 322-6325.

Attachment

Attachment

Chronic Reference Exposure Levels Adopted by OEHHA – February 2000

	<i>Substance (CAS #)</i>	<i>Chronic Inhalation REL ($\mu\text{g}/\text{m}^3$)</i>	<i>Hazard Index Target(s)</i>
1	Ammonia (7664-41-7)	200	Respiratory system
2	Benzene (71-43-2)	60	Hematopoietic system; development; nervous system
3	Chlorinated dioxins (1746-01-6) & dibenzofurans (5120-73-19)	0.00004	Alimentary system (liver); reproductive system; development; endocrine system; respiratory system; hematopoietic system
4	Chlorine (7782-50-5)	0.2	Respiratory system
5	Ethylbenzene (100-41-4)	2,000	Development; alimentary system (liver); kidney; endocrine system
6	Ethylene glycol monoethyl ether (110-80-5)	70	Reproductive system; hematopoietic system
7	Ethylene glycol monoethyl ether acetate (111-15-9)	300	Development
8	Ethylene glycol monomethyl ether (109-86-4)	60	Reproductive system
9	Ethylene glycol monomethyl ether acetate (110-49-6)	90	Reproductive system
10	Formaldehyde (50-00-0)	3	Respiratory system; eyes
11	Hydrogen chloride (7647-01-0)	9	Respiratory system
12	Isopropanol (67-63-0)	7,000	Kidney; development
13	Mercury & mercury compounds (inorganic)	0.09	Nervous system
14	Methyl bromide (74-83-9)	5	Respiratory system; nervous system; development
15	Methyl chloroform (71-55-6)	1,000	Nervous system
16	Methyl t-butyl ether (1634-04-4)	8,000	Kidney; eyes; alimentary system (liver)
17	Methylene chloride (75-09-2)	400	Cardiovascular system; nervous system
18	Nickel & compounds (except nickel oxide)	0.05	Respiratory system; hematopoietic system
19	Nickel oxide (1313-99-1)	0.1	Respiratory system; hematopoietic system
20	Phosphoric acid (7664-38-2)	7	Respiratory system
21	Propylene glycol monomethyl ether (107-98-2)	7,000	Alimentary system (liver)
22	Propylene oxide (75-56-9)	30	Respiratory system