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NATURAL RESOURCES DEFENSE COUNCIL

July 6, 2006

By Registered Mail, Return Receipt Requested

Joan E. Denton, Ph.D., Director
Office of Environmental Health Hazard Assessment
1001 "I" Street
PO Box 4010
Sacramento, CA 95812

Re: Petition for Listing of 18 Chemicals Pursuant to Authoritative Bodies Mechanism of Safe Drinking Water and Toxic Enforcement Act of 1986

Dear Dr. Denton:

We write on behalf of the Natural Resources Defense Council, Inc., an environmental and public health organization with more than 130,000 members in California, to request that your office identify, pursuant to the authoritative bodies mechanism of the Safe Drinking Water and Toxic Enforcement Act of 1986 ("the Act"), eighteen chemicals or chemical classes as known to the State to cause reproductive toxicity. Each of these eighteen chemicals has been formally identified by the National Institute for Occupational Safety and Health ("NIOSH") as causing reproductive toxicity. Your office therefore has a legal and ministerial duty to list these chemicals pursuant to the Act.

I. The Authoritative Bodies Listing Mechanism

Section 25249.8(b) of the Act provides that a chemical is known to the State to cause reproductive toxicity if an "authoritative body" has "formally identified" the chemical as causing reproductive toxicity. A list of authoritative bodies is set forth in implementing regulations. 22 Cal. Code Reg. § 12306(*l*) & (m) (Appendix A).

These regulations also identify three requirements for determining that an authoritative body has made a "formal[] identif[ication]." First, the chemical must either have been "included on a list" of such chemicals issued by the authoritative body, or be the "subject of a report" by the authoritative body that "concludes that the chemical causes . . . reproductive toxicity," or be "otherwise . . . identified" as

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causing reproductive toxicity in a "document that indicates that such identification is a final action." 22 Cal. Code Reg. § 12306(d)(1). Second, the identifying document must "specifically and accurately identif[y] the chemical." 22 Cal. Code Reg. § 12306(d)(2). Third, the identifying document must meet one of six criteria that establish the document's "formal[ity]." Under these criteria, the document must have been either:

> (A) Reviewed by an advisory committee in a public meeting, if a public meeting is required, or
>
> (B) Made subject to public review and comment prior to its issuance, or
>
> (C) Published by the authoritative body in a publication, such as, but not limited to, the federal register for an authoritative body which is a federal agency, or
>
> (D) Signed, where required, by the chief administrative officer of the authoritative body or a designee, or
>
> (E) Adopted as a final rule by the authoritative body, or
>
> (F) Otherwise set forth in an official document utilized by the authoritative body for regulatory purposes.

22 Cal. Code Reg. § 22306(d)(2).

II. NIOSH Has Formally Identified the Eighteen Chemicals as Causing Reproductive Toxicity

The National Institute for Occupational Safety and Health is the federal agency responsible for conducting research and making recommendations for the prevention of work-related injury and illness. NIOSH is part of the Centers for Disease Control and Prevention ("CDC") in the Department of Health and Human Services. NIOSH is an authoritative body for the identification of chemicals as causing reproductive toxicity under the Safe Drinking Water and Toxic Enforcement Act of 1986. *See* 22 Cal. Code. Reg. § 12306(*l*)(2).

NIOSH recommends appropriate preventive measures to reduce or eliminate the adverse health and safety effects of workplace hazards. Pursuant to the Occupational Safety and Health Act of 1970 (29 U.S.C. chapter 15) and the Federal Mine Safety and Health Act of 1977 (30 U.S.C. chapter 22), NIOSH develops and periodically revises recommended exposure limits ("RELs") for hazardous substances or conditions in the workplace. Since the 1970s, NIOSH has

also joined with the Occupational Safety and Health Administration ("OSHA") to develop a series of occupational health standards for which OSHA has promulgated permissible exposure limits, or "PELs." *See* App. B, at Introduction, pp. 1-2; App. C at 1.

To formulate its recommendations, NIOSH evaluates all known and available medical, biological, engineering, chemical, trade, and other information relevant to the hazard. NIOSH then publishes and transmits its recommendations to OSHA and the Mine Safety and Health Administration ("MSHA") for use in promulgating legal standards. *See* App. B, at Introduction, pp. 1-2; App. C at 1. RELs issued through 1992 are collected in a single compendium, entitled *NIOSH Recommendations for Occupational Safety and Health: Compendium of Policy Documents and Statements*, Publ. No. 92-100 (1992) ("*NIOSH Compendium*"), *available at* http://www.cdc.gov/niosh/92-100.html (visited June 29, 2006).

NIOSH also publishes the *NIOSH Pocket Guide to Chemical Hazards* (Pub. No. 2005-151) ("*NIOSH Pocket Guide*"), *available at* http://www.cdc.gov/niosh/npg/ (visited June 29, 2006). This document presents key information and data for 677 chemicals or substance groupings that are found in the work environment. The *NIOSH Pocket Guide* was developed to collect and make more conveniently available the technical information found in RELs and PELs. It is updated periodically to reflect new data regarding the toxicity of various substances and any changes in exposure standards or recommendations. *See* App. B, at Introduction, pp. 1.

The online edition of the *NIOSH Pocket Guide* contains a hot link to the *NIOSH Compendium*, as a general reference, and additional "hot links" to various other supporting reference documents. For example, "hot links" are provided from each chemical listed in the *NIOSH Pocket Guide* directly to the relevant entry in the *Registry of Toxic Effects of Chemical Substances* (RTECS) [http://www.cdc.gov/niosh/rtecs/]. A print out of relevant portions of the *NIOSH Pocket Guide*, along with a print out of "hot linked" references from RTECS and a disk containing an electronic copy of the entire *NIOSH Pocket Guide*, are enclosed as Appendix B. A copy of the *NIOSH Compendium* is enclosed as Appendix C.

Both the *NIOSH Pocket Guide* and the *NIOSH Compendium* (which is one of the references for the *Pocket Guide*) fit squarely within the definition of documents through which an authoritative body may "formally identify" a chemical as causing reproductive toxicity. Both are, of course, "publications" of NIOSH. 22 Cal. Code Reg. § 12306(d)(2)(C). (In addition, both identify RELs and/or PELs that are used "for regulatory purposes." 22 Cal. Code Reg. § 12306(d)(2)(C).) Both provide "specific[] and accurate[]" identifying information for chemicals, including those listed in Table A. 22 Cal. Code Reg. § 12306(d)(2).

Both describe health effects or health hazards (*e.g.*, route, symptoms, and target organ information) as determined by NIOSH.

The eighteen chemicals listed on Table A, below, are each formally identified in the *NIOSH Pocket Guide* as causing reproductive toxicity (*e.g.*, toxicity to reproductive organs or the reproductive system). Many of these eighteen chemicals are also identified in the *NIOSH Compendium* as causing reproductive toxicity.

III. Conclusion

For these reasons, your office should list the chemicals identified on Table A as known to the State to cause reproductive toxicity, pursuant to the authoritative bodies listing mechanism. Please do not hesitate to contact us should you have any questions. We look forward to prompt action on this petition.

Sincerely,

Gina M. Solomon, MD, MPH
Senior Scientist

Michael E. Wall
Senior Attorney

cc: Cynthia Oshita (by email to coshita@oehha.ca.gov) (without enclosure)

TABLE A

Chemical Name	CAS Number	RTECS Number	*Effects as identified in the NPG*
1, 2, 4-Trichlorobenzene	120-82-1	DC2100000	Teratogenic effects
2, 4-Diaminoanisole (and its salts)	615-05-4	BZ8580500	Teratogenic effects, reproductive system
Acetaldehyde	75-07-0	AB1925000	Reproductive, teratogenic effects
Acrylamide	79-06-1	AS3325000	Reproductive effects, sperm morphology
Carbaryl	63-25-2	FC5950000	Reproductive effects
Diethyl phthalate	584-66-2	T1105000	Reproductive effects
Diphenylamine	122-39-4	JJ7800000	Teratogenic effects in animals
Di-sec octyl phthalate	117-81-7	T10350000	Teratogenic effects
Endosulfan	115-29-7	RB9275000	Reproductive system, decr. testis weight
Formamide	75-12-7	LQ0525000	Reproductive effects
Hexafluoroacetone	684-16-2	UC2450000	Teratogenic, reproductive effects
Methoxyflurane	76-38-0	KN782000	Reproductive, teratogenic effects
Monocrotophos	6923-22-4	TC4375000	Teratogenic effects
Nitrous Oxide	10024-97-2	QX1350000	Reproductive effects
P-nitrochlorobenzene	100-00-5	CZ1050000	Reproductive effects
Styrene	100-42-5	WL3675000	Reproductive effects, sperm morphology
Trimethyl phosphite	121-45-9	TH1400000	Teratogenic effects, reproductive system
Vinyl cyclohexene dioxide	106-87-6	RN8640000	Testicular atrophy