

OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD
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NOTICE OF PROPOSED MODIFICATIONS TO
CALIFORNIA CODE OF REGULATIONS
TITLE 8, Division 1, Chapter 4, Subchapter 7, Article 107, Section 5155
of the General Industry Safety Orders

Airborne Contaminants

Pursuant to Government Code Section 11346.8(c), the Occupational Safety and Health Standards Board (Standards Board) gives notice of the opportunity to submit written comments on the above-named regulations in which further modifications are being considered as a result of public comments and/or Board staff evaluation.

On April 21, 2011, the Occupational Safety and Health Standards Board held a Public Hearing to consider revisions to Title 8, Division 1, Chapter 4, Subchapter 7, General Industry Safety Orders, Article 107, Section 5155. The Standards Board received oral and written comments on the proposed modifications. The regulation has been modified as a result of these comments.

A copy of the text with the modifications clearly indicated, are attached for your information. In addition, a summary of all oral and written comments regarding the original proposal and responses is included.

Any written comments must be related to these modifications and be received by 5:00 p.m. on December 30, 2011 at the Occupational Safety and Health Standards Board's Office, 2520 Venture Oaks Way, Suite 350, Sacramento, California 95833 or submitted by fax at (916) 274-5743 or e-mailed at oshsb@dir.ca.gov. This proposal will be scheduled for adoption at a future Business Meeting of the Occupational Safety and Health Standards Board.

The Occupational Safety and Health Standards Board's rulemaking file on the proposed action is open to public inspection Monday through Friday, from 8:00 a.m. to 4:30 p.m. at the Standards Board's Office, 2520 Venture Oaks Way, Suite 350, Sacramento, California.

Inquires concerning the proposed modifications may be directed to the Executive Officer, Marley Hart at (916) 274-5721.

OCCUPATIONAL SAFETY AND HEALTH
STANDARDS BOARD

Marley Hart, Executive Officer

Date: December 12, 2011

Modifications to the Original Proposal

(Modifications are indicated with **bold** double underline for new language or **bold** double strike-out for deleted language)

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

PROPOSED STATE STANDARD,
TITLE 8, CHAPTER 4

Amend Section 5155 to read:

§5155. Airborne Contaminants.

(a) Scope and Application.

(1) This section establishes requirements for controlling employee exposure to airborne contaminants and skin contact with those substances which are readily absorbed through the skin and are designated by the "S" notation in Table AC-1 at all places of employment in the state.

* * * * *

Table AC-1
PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS

<i>Chemical Abstracts Registry Number</i> ^(a)	<i>Skin</i> ^(b)	<i>Name</i> ^(c)	<i>PEL</i> ^(d)		<i>Ceiling</i> ^(g)	<i>STEL</i> ^(o)	
			<i>ppm</i> ^(e)	<i>mg/M</i> ^{3(f)}		<i>ppm</i> ^(e)	<i>mg/M</i> ^{3(f)}
* * * * *							
75150	S	Carbon disulfide	4 <u>1</u>	12 <u>3</u>	30 ppm	12	36
* * * * *							
7664393	<u>S</u>	Hydrogen fluoride, as F	3 <u>0.4</u>	2.5 <u>0.33</u>		6 <u>1</u>	-- <u>0.83</u>
* * * * *							
7664939		Sulfuric acid	--	1 <u>0.1</u>		--	3 <u>3</u>
* * * * *							
108883	S	Toluene; toluol	50 <u>10</u>	188 <u>37</u>	500 ppm	150	560
* * * * *							

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Sections 142.3 and 144.6, Labor Code.

Summary of and Responses to Oral and Written Comments

SUMMARY OF AND RESPONSES TO WRITTEN AND ORAL COMMENTS

I. Written Comments:

Van A. Howell, CSP, Area Director, U.S. Department of Labor, Occupational Safety and Health Administration, by letter dated March 4, 2011.

Comment: Mr. Howell stated that the proposed revisions of Permissible Exposure Limits (PELs) are lower than those listed in federal standards, but the proposed revisions are commensurate with federal protections.

The proposed lowering of the 8-hour time-weighted average PELs for toluene and carbon disulfide could make the existing Short Term Exposure Limit (STEL) values established for carbon disulfide and toluene problematic for an employer. With the industrial hygiene principle of no more than four STEL exposures allowed during an eight-hour time-weighted average (TWA), the PEL-TWA value could be exceeded even if the employer did not exceed the STEL value. While this would still be a violative condition, an advisory note would put employers on notice that regardless of the STEL value for a substance an employer cannot exceed the established eight-hour time-weighted PEL.

Response: As noted elsewhere in these Responses to Comments, the Division of Occupational Safety and Health (Division) plans to discuss the STEL for toluene in its advisory committee process for PELs. Rather than adding the suggested NOTE at this time, the Division will add the issue addressed in this letter to the planning for that advisory committee discussion.

The Board thanks Mr. Howell for participating in this rulemaking process.

Judith S. Freyman, Mercer ORC Networks, by letter dated March 29, 2011.

Comment: Ms. Freyman supports the four PELs proposed for amendments and the revised advisory committee process used by the Division to develop them. She noted that the revised process provides for increased transparency and opportunity for stakeholder involvement and dialogue which she believes can help improve their acceptance by these groups of the PELs proposed to the Board.

Response: The Board thanks Ms. Freyman for participating in this rulemaking process.

Catherine A. Porter, JD, California Healthy Nail Salon Collaborative, by letter dated April 12, 2011.

Comment: Ms. Porter urges adoption of a PEL for toluene that would protect against spontaneous abortion as much as possible, consistent with the findings of the study of Ng et al. (1992) discussed in the Health Expert Advisory Committee (HEAC). She notes that since the HEAC recommendation was made in December 2008, toluene has been listed as a reproductive toxicant under Proposition 65. Ms. Porter recommends a PEL of not greater than 3 ppm to better protect nail salon workers, the majority of whom are women of reproductive age. She also urged that the PEL for toluene be as protective as the standard for the general public under Proposition 65 by being no greater than 0.5 ppm based upon a No Observed Effect Level (NOEL) of 500 ppm divided by 1,000, as detailed in the Final Statement of Reasons for Establishment of a Regulatory Level for Toluene, March 1992. Ms. Porter also encouraged adoption of a STEL for toluene to better protect workers against exposures of short duration but of a higher and dangerous level.

Response: With regard to a PEL of 3 ppm based on the study of Ng et al. (1992), see the response below to Julia Quint's written comment. With regard to a PEL of 0.5 ppm based on a NOEL of 500 ppm, the Board declines to make this change to the proposal. For a possible PEL of 0.5 ppm based on a NOEL of 500 ppm for reproductive effects, the commenter cites a factor of 1,000 as being referenced in the 1992 Proposition 65 rulemaking for toluene. This factor of 1,000 is codified in the statutory language of Proposition 65 in Health and Safety Code Section 25249.10(c). However, Office of Environmental Health Hazard Assessment (OEHHA) and the United States Environmental Protection Agency have recommended different uncertainty factors which were used by the HEAC in recommending the amended PEL for toluene proposed for adoption.

With regard to the commenter's suggestion that a Short Term Exposure Limit (STEL) be adopted for toluene, the Board notes that the PEL for toluene currently includes a 15-minute STEL of 150 ppm for toluene, and this value has not been proposed for amendment in this rulemaking. The Board notes that there is an Acute Reference Exposure Level (A-REL) for toluene developed by the OEHHA, and other scientific information that could support a lowering of the existing STEL for this chemical hazard. Therefore, the Division will initiate discussion of possible revision of the STEL for toluene in a HEAC meeting at the earliest reasonable date.

The Board thanks Ms. Porter for participating in this rulemaking process.

Julia Quint, Ph.D., by letter dated April 21, 2011.

Comment: Dr. Quint notes that in August 2009, OEHHA listed toluene under Proposition 65 as "known to the state to cause reproductive toxicity" based on the Ng et al. study (1992) which showed an increase in spontaneous abortions among toluene-exposed workers. She said that in her work on toluene as a HEAC member, she had derived a possible PEL for toluene of 3 ppm based on the Ng et al. study, but she did not propose a PEL for toluene based on this study because of a potential confounding factor, which could have affected the study results. Dr. Quint notes, however, that the addition in August 2009 of female reproductive effects to the Proposition 65 listing for toluene was based on the Ng et al. study. She suggested that, due to OEHHA's extensive and superior expertise in this area, a PEL of 3 ppm for toluene may be more scientifically accurate and health protective.

Response: On June 24, 2011 Division staff spoke with Jim Donald, from the Reproductive and Cancer Hazard Assessment Branch of OEHHA, which is responsible for chemical listings under Proposition 65. Mr. Donald explained that under the “Labor Code Mechanism” of the Health & Safety Code for listing substances and their effects on the Proposition 65 chemicals list, “female reproductive toxicity” was added to the listing for toluene as a result of this effect being a basis for the revised Threshold Limit Value (TLV) for toluene published by the American Conference of Governmental Industrial Hygienists in 2007. Mr. Donald said that the Labor Code Mechanism for listing under Proposition 65 does not provide for OEHHA to evaluate the rationale of the TLV or the study underlying its revision based in part on female reproductive effects. This was confirmed by OEHHA Chief Counsel Carol Monahan-Cummings on July 22, 2011 who indicated that the relevant Health & Safety Code section for the Labor Code Mechanism is 25249.8(a).

It is clear from the above that the Labor Code Mechanism used in adding “female reproductive toxicity” to the Proposition 65 listing for toluene in 2009 did not provide for OEHHA to independently assess the Ng et al. (1992) study, as the commenter suggests might have occurred. In light of this, the Board declines to modify the PEL proposed for toluene based upon the Ng et al. (1992) study.

Comment: Dr. Quint commented on what she viewed as the excessive amount of time it has taken the Division to forward PEL proposals to the Board from the advisory committee process, based on her experience developing health-based PEL recommendations for three substances for the HEAC before resigning from that committee.

Response: The comments made by Dr. Quint regarding the HEAC process are beyond the scope of this rulemaking and will not be the subject of a response.

Frances C. Schreiber; Kazan, McClain, Lyons, Greenwood & Harley; PLC, by letter dated April 21, 2011.

Comment: Ms. Schreiber objected to the proposed elimination of the 15-minute STEL for sulfuric acid and asked that the proposal be revised to include a STEL for sulfuric acid. She acknowledges that the 8-hour time-weighted average value is almost numerically equivalent to the existing 15-minute STEL value. However, she notes that many exposures to sulfuric acid in California are of an intermittent and short-term nature that may not be assessed if the PEL does not include a STEL. Ms. Schreiber notes also that removing the STEL for sulfuric acid may affect exposure assessments related to the ventilation requirements under California Code of Regulations, Title 8, Section 5154 with respect to open surface tanks.

Response: The Board agrees with the commenter that a STEL should be retained for sulfuric acid and is proposing to modify the proposal to retain the existing STEL of 3 mg/M³ for sulfuric acid. The Board notes that there is an Acute Reference Exposure Level for sulfuric acid developed by the OEHHA and other scientific information could support a lowering of the existing STEL for this chemical hazard. However, before proposing to lower the existing STEL, the Board believes there should be discussion of

the matter in the Division's advisory process for PELs. Therefore, a possible revision of the STEL for sulfuric acid will be discussed in a PEL advisory meeting at the earliest reasonable date.

The Board thanks Ms. Schreiber for participating in this rulemaking process.

II. Oral Comments at the April 21, 2011 Public Hearing in Sacramento, California:

Elizabeth Treanor, Phylmar Regulatory Roundtable.

Comment: Ms. Treanor expressed appreciation for the transparency of the advisory committee process which led to them and the committee members and Division staff involved.

Response: The Board thanks Ms. Treanor for participating in this rulemaking process.

Catherine Porter, California Health Nail Salon Collaborative.

Comment: Ms. Porter summarized her written comments regarding toluene, by letter dated April 12, 2011.

Response: See the Board's response to Ms. Porter's letter, dated April 12, 2011.

Judi Freyman, Mercer ORC Networks.

Comment: Ms. Freyman summarized her written comments praising the HEAC and FAC process, by letter dated March 29, 2011.

Response: See the Board's response to Ms. Freyman's letter, dated March 29, 2011.

Dan Leacox, Greenberg Traurig.

Comment: Speaking on behalf of the Nail Manufacturers Council, Mr. Leacox said that the PEL proposed for toluene was based on the health effects studies and that feasibility had not been an issue. He said that especially since toluene had been largely formulated out of nail salon products five or six years ago, the feasibility of the amended PEL proposed for toluene is not an issue in the nail salon industry.

Response: The Board thanks Mr. Leacox for participating in this rulemaking process.

Julia Quint, Ph.D.

Comment: Dr. Quint summarized her written comments praising the HEAC and FAC process, by letter dated April 21, 2011.

Response: See the Board's response to Dr. Quint's letter, dated April 21, 2011.