

Memorandum

To : ALL STANDARDS BOARD MEMBERS

Date: April 28, 2006

From : **Occupational Safety and Health Standards Board**
Tom Mitchell, Senior Industrial Hygienist

Subject : **Adopt Title 8, Sections 1532.2, 5206, and 8359, Hexavalent Chromium**

The following information is provided in regard to the proposed revisions to the California Code of Regulations, Title 8, Chapter 4, Subchapter 4, Article 4, New Section 1532.2 of the Construction Safety Orders; Title 8, Chapter 4, Subchapter 7, Article 107, Section 5155 and Article 110, New Section 5206 of the General Industry Safety Orders; and Title 8, Chapter 4, Subchapter 18, Article 4, New Section 8359 of the Ship Building, Ship Repairing and Ship Breaking Safety Orders.

INFORMATIVE DIGEST OF PROPOSED ACTION/POLICY STATEMENT OVERVIEW

The Occupational Safety and Health Standards Board (Board) intends to adopt the proposed rulemaking action pursuant to Labor Code Section 142.3, which mandates the Board to adopt standards at least as effective as federal standards addressing occupational safety and health issues.

The U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) promulgated standards addressing Hexavalent Chromium, Cr(VI) on February 28, 2006, as 29 Code of Federal Regulations, Sections 1910.1026, 1915.1026, 1926.1126. The Board is relying on the explanation of the provisions of the federal standards in Federal Register, Volume 71, No. 39, pages 10100 - 10385, February 28, 2006, as the justification for the Board's proposed rulemaking action. The Board proposes to adopt standards which are the same as the federal standard except for editorial and format differences.

The OSHA final rule establishes an 8 hour time-weighted average (TWA) Permissible Exposure Limit (PEL) of 0.005 milligrams of Cr(VI) per cubic meter of air (0.005mg/m³). This PEL of 0.005 mg/m³ is equivalent to 5 micrograms per cubic meter of air (5ug/m³). The previous PEL was 0.052 mg/m³. OSHA is establishing three separate standards covering occupational exposures to Cr(VI) for: (1) general industry (29 CFR 1910.1026); (2) shipyards (29 CFR 1915.1026), and (3) construction (29 CFR 1926.1126). The final rule also contains ancillary provisions for exposure determination, methods of compliance, respiratory protection, protective work clothing and equipment, hygiene areas and practices, medical surveillance, communication of Cr(VI) hazards to employees, recordkeeping, and compliance dates. The general industry standard has additional provisions for regulated areas and housekeeping.

The standards apply to occupational exposures to Cr(VI) in all forms and compounds with the following limited exceptions: 1) exposures that occur in the application of pesticides (e.g., the treatment of wood with preservatives) since these exposures are already covered by the

Environmental Protection Agency; 2) exposure to portland cement; and 3) exposures in work settings where the employer has objective data demonstrating that exposures to Cr(VI) cannot exceed 0.5 ug/m^3 under any expected conditions of use. All provisions except engineering controls have a start-up date of November 27, 2006, (May 30, 2007, for small business). Engineering controls must be in place by May 31, 2010.

The proposal would add Section 1532.2, construction; Section 5206, general industry; and Section 8359, maritime. The proposed new sections are substantially the same as the federal counterpart standards, although the federal standards refer to federal respirator, hazard communication, hygiene, and recordkeeping standards, whereas the proposal references the counterpart Title 8 standards. The referenced Title 8 standards are at least as effective as the counterpart federal standards and do not place any additional requirements on employers since they already apply to the operations covered by the proposed Cr(VI) standards.

This rulemaking proposal also amends the table of airborne contaminants in Section 5155 by revising the PELs of substances containing Cr(VI) to be consistent with the new federal PEL, and by adding text to refer the reader to additional requirements contained in the proposed Cr(VI) standards. Section 5155(a)(2) provides instruction regarding the application of the PELs in Section 5155 that reference another section in Title 8. It states, "When this section references another section for controlling employee exposures to a particular airborne contaminant, the provisions of this section for such substance shall apply only to those places of employment which are exempt from the other standard."

The Time-Weighted Average (TWA) PEL is proposed to be lowered to 0.005 mg/m^3 , measured as chromium, for the following substances listed in Section 5155 that contain Cr(VI): tert-butyl chromate, chromite ore processing, chromium (VI) compounds, lead chromate, zinc chromate, zinc chromate hydroxide, zinc potassium chromate, and zinc yellow. The Ceiling Limit for tert-butyl chromate and chromium (VI) compounds is retained at 0.1 mg/m^3 measured as chromium.

The current PEL for lead chromate is 0.050 mg/m^3 when measured as lead, which is the PEL established for lead compounds in the comprehensive lead standards for general industry and construction, i.e., Sections 5198 and 1532.1. Since the atomic mass of lead is approximately four times the atomic mass of chromium, the PEL of 0.050 mg/m^3 for lead chromate measured as lead is equivalent to a PEL of 0.012 mg/m^3 for lead chromate measured as chromium. The PEL for lead chromate is proposed to be lowered to 0.005 mg/m^3 when measure as chromium, which is the same as the new federal PEL for all Cr(VI) compounds. This concentration of lead chromate measured as chromium is equivalent to 0.020 mg/m^3 of lead chromate measured as lead. Therefore the proposed PEL for lead chromate is 0.020 mg/m^3 as lead and 0.005 mg/m^3 as chromium. Immediately below the PEL for lead chromate listed in Section 5155 is a reference to Section 5198 that directs the reader to the additional requirements of that comprehensive standard for lead. The proposal expands this reference to include proposed Sections 1532.2, 5206, and 8359 to direct the reader to the additional requirements which apply to Cr(VI) compounds, including lead chromate.

Section 5155 lists the PEL for strontium chromate as 0.0005 mg/m^3 measured as chromium, which is one-tenth the PEL for Cr(VI) compounds in proposed Sections 1532.2, 5206, and 8359. This rulemaking proposal amends Section 5155(a)(2) to provide an exception for strontium

chromate, so the existing PEL for strontium chromate and the provisions of Section 5155 will apply to strontium chromate exposures in addition to the requirements of proposed Sections 1532.2, 5206, and 8359, which are referenced directly below the PEL for strontium chromate in Section 5155. The proposal also includes a note in new Sections 1532.2, 5206, and 8359 in the scope subsection of the standards to notify the reader that exposures to strontium chromate must comply with the provisions of Section 5155 in addition to the new Cr(IV) standards.

Because the proposed standards are substantially the same as the final rule promulgated by Federal OSHA, Labor Code Section 142.3(a)(3) exempts the Board from the provisions of Article 5 (commencing with Section 11346) and Article 6 (commencing with Section 11349) of Chapter 3.5, Part 1, Division 3 of Title 2 of the Government Code when adopting standards substantially the same as a federal standard. However, the Board is still providing a comment period and will convene a public hearing. The purpose of the written and oral comments at the public hearing is to: 1) identify any clear and compelling reasons for California to deviate from the federal standard; 2) identify any issues unique to California related to this proposal which should be addressed in this rulemaking and/or a subsequent rulemaking; and, 3) solicit comments on the proposed effective date. The responses to comments will be available in a rulemaking file on this matter and will be limited to the above areas.

The effective date is proposed to be upon filing with the Secretary of State as provided by Labor Code Section 142.3(a)(3). The standards may be adopted without further notice even though modifications may be made to the original proposal in response to public comments or at the Board's discretion.

DOCUMENTS RELIED UPON

Federal Register, Volume 71, No. 39, pages 10100 - 10385, February 28, 2006

This document is available for review Monday through Friday from 8:00 a.m. to 4:30 p.m. at the Standards Board Office located at 2520 Venture Oaks Way, Suite 350, Sacramento, California.

STRIKEOUT/UNDERLINE DRAFT PROPOSAL

See Attachment No. 1.

SIDE-BY-SIDE CODE COMPARISON WITH FEDERAL STANDARD

See Attachment No. 2.

COST ESTIMATES OF PROPOSED ACTION

The federal preamble, Section VIII-D, estimates a nationwide, annual total cost to employers of \$282 million. Engineering control costs represent 41 percent of the total costs, and respiratory protection costs represent 25 percent of the total costs of the new provisions of the final standard. Costs for the new provisions for general industry are \$192 million per year, costs for construction are \$67 million per year, and costs for the shipyard sector are \$23 million per year. The annual cost to State employers is estimated to be approximately ten percent of the national

total or \$28.2 million. Since the State's standard is required to be at least as effective as the federal standard, these costs are the result of the federal changes.

DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed standards do not impose a local mandate. Therefore, reimbursement by the state is not required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code because these standards do not constitute a "new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution."

The California Supreme Court has established that a "program" within the meaning of Section 6 of Article XIII B of the California Constitution is one which carries out the governmental function of providing services to the public, or which, to implement a state policy, imposes unique requirements on local governments and does not apply generally to all residents and entities in the state. (County of Los Angeles v. State of California (1987) 43 Cal.3d 46.)

These proposed standards do not require local agencies to carry out the governmental function of providing services to the public. Rather, the standards require local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, these proposed standards do not in any way require local agencies to administer the California Occupational Safety and Health program. (See City of Anaheim v. State of California (1987) 189 Cal.App.3d 1478.)

These proposed standard do not impose unique requirements on local governments. All state, local and private employers will be required to comply with the prescribed standards.

EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed amendment may affect small businesses. Where small businesses have significant occupational exposure to Cr(VI), these businesses would incur a portion of the costs estimated previously for all employers.

ASSESSMENT

The adoption of the proposed standards will neither create nor eliminate jobs in the State of California nor result in the elimination of existing businesses or create or expand businesses in the State of California.

Attachments