

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

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**TITLE 8. CALIFORNIA CODE OF REGULATIONS**

(Published March 4, 2016)

**General Industry Safety Orders
Section 5155****Airborne Contaminants - Wood Dust and Western Red Cedar**

NOTICE IS HEREBY GIVEN that the Occupational Safety and Health Standards Board (Board) proposes to adopt, amend or repeal the foregoing provisions of Title 8 of the California Code of Regulations in the manner described in the Informative Digest, below.

PUBLIC HEARING

The Board will hold a public hearing starting at 10:00 a.m. on **April 21, 2016** in the **Council Chambers** of the **Walnut Creek City Hall, 1666 N. Main Street, Walnut Creek**. At this public hearing, any person may present statements or arguments orally or in writing relevant to the proposed action described in the Informative Digest.

WRITTEN COMMENT PERIOD

Any interested person may present statements or arguments orally or in writing at the hearing on the proposed changes under consideration. The written comment period commences on **March 4, 2016** and closes at 5:00 p.m. on **April 21, 2016**. Comments received after that deadline will not be considered by the Board unless the Board announces an extension of time in which to submit written comments. Written comments are to be submitted as follows:

By mail to Sarah Money, Occupational Safety and Health Standards Board, 2520 Venture Oaks Way, Suite 350, Sacramento, CA 95833; or

By fax at (916) 274-5743; or

By e-mail sent to oshsb@dir.ca.gov.

AUTHORITY AND REFERENCE

Labor Code Section 142.3 establishes the Board as the only agency in the State authorized to adopt occupational safety and health standards. In addition, Labor Code Section 142.3 requires the adoption of occupational and health standards that are at least as effective as federal occupational safety and health standards.

Labor Code, Section 144.6 requires that the Board, when dealing with standards for toxic materials and harmful physical agents, adopt standards which most adequately assure, to the extent feasible, that no employee suffer material impairment of health or functional capacity even if such employee has regular exposure to the hazard for the period of their working lifetime. This section also requires that the Board base standards on research, demonstrations, experiments and other information as may be appropriate. Labor Code, Section 144.6 also lists other considerations such as the latest available scientific data in the field, the reasonableness of the standards, and experience gained under this and other health and safety laws.

INFORMATIVE DIGEST OF PROPOSED ACTION/POLICY STATEMENT **OVERVIEW**

CCR Title 8, Section 5155, Airborne Contaminants, establishes minimum requirements for controlling employee exposure to specific airborne contaminants. California periodically amends the airborne contaminants table (Table AC-1) in this standard to keep it consistent with current information regarding harmful effects of exposure to these substances and other new substances not listed.

The substances wood dust and western red cedar with the amended Permissible Exposure Limits (PEL) in this proposal were considered by the Division of Occupational Safety and Health's (Division) Health Expert Advisory Committee (HEAC) in three public meetings from September 2009 through June 2010. The HEAC considered the health basis of possible changes to the PEL based on a range of scientific information. Technical assistance was also provided to the Division by the Hazard Evaluation System and Information Service in the California Department of Public Health. In addition, informal public comment was invited on the range for possible PELs recommended by the HEAC for potential feasibility and cost issues at a meeting of the Division's Feasibility Advisory Committee (FAC) on October 6, 2010. The meetings of both the HEAC and the FAC were open to the public.

The effect of these amendments is to reduce the risk of material impairment of health or functional capacity of employees exposed to wood dust and western red cedar.

The proposed changes to CCR Title 8, Section 5155 are considered to be at least as effective as, or more stringent than, the Code of Federal Regulations (CFR) requirements for these substances found at CFR Title 29, Section 1910.1000 for Air Contaminants.

This proposed rulemaking action is not inconsistent or incompatible with existing state regulations. This proposal is part of a system of occupational safety and health regulations. The consistency and compatibility of that system's component regulations is provided by the requirement of the federal government and the Labor Code that the State regulations be at least as effective as their counterpart and the requirement that all state occupational safety and health rulemaking be channeled through a single entity (the Standards Board).

This proposal differs from existing federal standards in that federal OSHA does not currently include a specific PEL value for wood dust or for western red cedar. Regarding occupational health issues not covered by federal standards, Labor Code section 147.1(c) mandates that the

Division maintain surveillance, determine the necessity for standards, and develop and present proposed standards to the Standards Board. For a variety of reasons, the federal standards for air contaminants have remained largely unrevised since their promulgation in the early 1970s, with the exception of substances for which individual comprehensive chemical hazard control standards have been promulgated, primarily for carcinogens. Since the federal standards were promulgated over 40 years ago, considerable scientific evidence has shown that wood dust and western red cedar have the potential to adversely affect human health. The Standards Board believes the Division appropriately carried out its mandate under Labor Code section 147.1 to present the PELs proposed for wood dust and for western red cedar in this rulemaking, including a determination of necessity for the proposed amendments. In addition, the Standards Board believes that with this proposal, it is carrying out its mandate under Labor Code section 144.6 to adopt standards dealing with toxic materials which most adequately assure, to the extent feasible, that no employee will suffer material impairment of health or functional capacity, taking into account the latest available scientific data in the field and the reasonableness of the standard.

Anticipated Benefits

Adoption of the proposed change to the PEL for wood dust will result in improved lung function and fewer respiratory symptoms for workers in the wood industry. This change will also reduce workers' potential for the development of cancer as a result of exposure to wood dust.

Adoption of the proposed change to the PEL for western red cedar will protect workers exposed to dust from this wood from development of occupational asthma.

The specific changes are as follows:

- Lowers the existing PEL in CCR, Title 8, Section 5155 Table AC-1 for wood dust from an 8-hour time-weighted average (TWA) of 5 milligrams per cubic meter of air (mg/M^3) to $1 \text{ mg}/\text{M}^3$ total particulate mass.
- Lowers the existing 15-minute short term exposure limit in CCR, Title 8, Section 5155 Table AC-1 for wood dust from $10 \text{ mg}/\text{M}^3$ to $5 \text{ mg}/\text{M}^3$ total particulate mass.
- Lowers the existing PEL in CCR, Title 8, Section 5155 Table AC-1 for Western Red Cedar from an 8-hour TWA of $2.5 \text{ mg}/\text{M}^3$ to $0.5 \text{ mg}/\text{M}^3$ total particulate mass.

The effect of these revisions will be to lower the risk that workers exposed to these dusts will develop lung disease, including cancer and occupational asthma. These changes will assure, to the extent feasible, that no employee will suffer material impairment of health or functional capacity from exposure to these materials over a working life.

DISCLOSURES REGARDING THE PROPOSED ACTION

Mandate on Local Agencies and School Districts: None.

Cost or Savings to State Agencies: None.

Cost to any Local Government or School District which must be Reimbursed in Accordance with Government Code Sections 17500 through 17630: None.

Other Nondiscretionary Cost or Savings Imposed on Local Agencies: None.

Cost or Savings in Federal Funding to the State: None.

Cost Impacts on a Representative Private Person or Business:

The Division is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action. Based upon a representative study, the Division believes that a large proportion of affected enterprises are already in compliance with the proposed full-shift PEL, so these enterprises will not have any new costs. For those far fewer enterprises that may not be in compliance and for which there may be a cost impact, the Division believes this cost impact will be nominal. The Division believes that technological improvement and growth and spread of knowledge in recent years has made complying with the proposed PEL easier and in many cases far cheaper than in the past.

Most wood manufacturers with large scale facilities and large numbers of employees must rely on specialized central ventilation systems that deposit wood dust outside the work building. Though such ventilation systems can be very expensive, nearly all large wood manufacturers have had such systems installed for many years. The industry and its insurers have long recognized that such systems are necessary to prevent fires and explosions, so large wood manufacturers already have these systems, though in some cases not well-maintained. Since 2008, federal OSHA has conducted a major emphasis program on reducing the risk of dust explosions. Employers in many industries, including wood manufacturing have been responding by improving the maintenance and performance of their existing ventilation systems. Long overlooked maintenance on the ventilation systems, such as replacing inefficient ventilation fans, cleaning ducts and repairing leaks, as well as improved maintenance of woodworking machines and better housekeeping of remaining fugitive dust all serve to reduce worker exposure to wood dust as a side effect of reducing the risk of wood dust explosions. As stated above, because of the attention woodworking manufacturing enterprises have paid to these issues, many will not incur new costs to comply with this proposal.

Most of the wood manufacturing facilities that are not in compliance with the proposed PEL are smaller scale facilities, employing in most cases, only a few workers. In many instances such facilities never installed central ventilation systems. However, because of late 2007 regulatory changes adopted by the Standards Board CCR Title 8, Section 4324, indoor utilization of small, inexpensive “enclosureless bag-type dust collectors [ECD]” is now permitted instead of designed central dust collection systems with a cyclone and/or baghouse located outside the workshop. ECD systems cost between a few hundred dollars for units servicing one or two single woodworking machines to a couple of thousand for complex units servicing more machines. Another way in which wood manufacturers can reduce fugitive wood dust emissions is modification of the designed dust capture ventilation systems on existing woodworking machines, such as table saws and sanders. Vintage machines have ventilation designs that have been determined to be leaking and inefficient but easily and very cheaply remediated by

employers by their own efforts incurring only the cost of off-the-shelf sheet metal parts (under \$100). Various sources, including federal OSHA, National Institute for Occupational Safety and Health and numerous other sources available on the internet provide detailed instructions and designs to assist do-it-yourselfers make these modifications.

Another low-cost way to reduce wood dust exposure is to remove accumulated dust more frequently and more efficiently. Enterprises that clean by dry sweeping fugitive dust accumulations contribute both to higher airborne wood dust concentrations and to the explosion and fire risk. Low cost vacuums are an effective housekeeping alternative to sweeping. For hand operations, such as cutting with circular saws, vacuum equipped hand tools are available at costs equivalent to non-vacuum equipped models.

The above considerations [as well as other production-related changes with secondary effects reducing the amount of employee dust exposure, such as a proper alignment of cutting tools and computerized cutting] contribute to the conclusion that the average cost for achieving compliance with the proposed PELs to employers not already in compliance will be low, while a large majority of firms will incur no new costs.

Statewide Adverse Economic Impact Directly Affecting Businesses and Individuals: Including the Ability of California Businesses To Compete:

The Division has made an initial determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses/individuals, including the ability of California businesses to compete with businesses in other states. Based upon the most relevant study by Kalliny et al., nearly three quarters of affected facilities with air sampling data available are already compliant with the proposed full-shift PEL. The high percentage of complying facilities demonstrates that most non-attaining facilities will be able to come into compliance by adopting improved housekeeping and maintenance policies rather than through additional capital expenditure.

Significant Affect on Housing Costs: None.

DETERMINATION OF MANDATE

The Division of Occupational Safety and Health has determined that the proposed standard does not impose a local mandate. There are no costs to any local government or school district which must be reimbursed in accordance with Government Code Sections 17500 through 17630.

SMALL BUSINESS DETERMINATION

The Division has determined that the proposed amendment may affect small businesses. However, no economic impact is anticipated because small businesses will be able to come into compliance through the use of improved administrative procedures such as better housekeeping and better maintenance of existing mechanical exhaust ventilation. Small businesses are currently required to provide mechanical exhaust ventilation and provide adequate housekeeping in order to maintain wood dust levels below the current PELs. See also the discussion of cost

impacts on private businesses, as those considerations as well as other production-related changes with secondary effects reducing the amount of employee dust exposure, such as proper alignment of cutting tools and computerized cutting contribute to the conclusion that the average cost for achieving compliance with the proposed PELs to small business employers not already in compliance will be about \$1,000. Based upon the overall small percentage of woodworking firms not already in compliance, only about a thousand firms in California will be financially impacted.

RESULTS OF THE ECONOMIC IMPACT ASSESSMENT/ANALYSIS

The proposed regulation will not have any effect on the creation or elimination of California jobs or the creation of new businesses or the elimination of existing California businesses or affect the expansion of existing California businesses.

There will be no significant adverse economic impact on businesses as a result of this proposal because most affected businesses are already compliant with the proposed new PELs and those affected businesses not in compliance are also not in compliance with the existing PELs either due to poor housekeeping and poor maintenance of existing exhaust ventilation equipment or because of failure to install exhaust ventilation required under existing regulations.

This proposal will neither create nor eliminate jobs within the State of California. This proposal will not create new businesses or eliminate existing businesses within the State of California or lead to the expansion of businesses currently doing business within the State of California.

BENEFITS OF THE PROPOSED ACTION

Both employers and employees in the wood manufacturing industry will benefit from improved employee respiratory health as a result of adoption of this proposal. The Division believes that employees in the wood manufacturing industry in California will benefit from improved respiratory health as a result of the adoption of these amended PELs. Employers will benefit from improved work attendance by employees due to improved respiratory health. Employers not already compliant with the new PELs will improve maintenance and utilization of existing mechanical exhaust ventilation to achieve ambient wood dust levels that are compliant with the new PELs. Improved mechanical exhaust dust capture will result in less dust on workplace surfaces. Less surface dust accumulation benefits employers by lowering housekeeping costs. By thus reducing workplace accumulated dust levels and associated fire hazards, employers and employees will both benefit.

CONSIDERATION OF ALTERNATIVES

In accordance with Government Code Section 11346.5(a)(13), the Division must determine that no reasonable alternative it considered to the regulation or that has otherwise been identified and brought to its attention would either be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons or

would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provision of law than the proposal described in this Notice.

The Board invites interested persons to present statements or arguments with respect to alternatives to the proposed regulation at the scheduled public hearing or during the written comment period.

CONTACT PERSONS

Inquiries regarding this proposed regulatory action may be directed to Marley Hart (Executive Officer) and the back-up contact person is Michael Manieri (Principal Safety Engineer) at the Occupational Safety and Health Standards Board, 2520 Venture Oaks Way, Suite 350, Sacramento, CA 95833; (916) 274-5721.

AVAILABILITY OF STATEMENT OF REASONS, TEXT OF THE PROPOSED REGULATIONS AND RULEMAKING FILE

The Board will have the entire rulemaking file available for inspection and copying throughout the rulemaking process at its office at the above address. As of the date this notice is published in the Notice Register, the rulemaking file consists of this notice, the proposed text of the regulations, the initial statement of reasons and supporting documents or other information upon which the rulemaking is based. Copies may be obtained by contacting Ms. Hart or Mr. Manieri at the address or telephone number listed above.

AVAILABILITY OF CHANGED OR MODIFIED TEXT

After holding the hearing and considering all timely and relevant comments received, the Board may adopt the proposed regulations substantially as described in this notice. If the Board makes modifications which are sufficiently related to the originally proposed text, it will make the modified text (with the changes clearly indicated) available to the public at least 15 days before the Board adopts the regulations as revised. Please request copies of any modified regulations by contacting Ms. Hart or Mr. Manieri at the address or telephone number listed above. The Board will accept written comments on the modified regulations for at least 15 days after the date on which they are made available.

AVAILABILITY OF THE FINAL STATEMENT OF REASONS

Upon its completion, copies of the Final Statement of Reasons may be obtained by contacting Ms. Hart or Mr. Manieri at the address or telephone number listed above or via the internet.

AVAILABILITY OF DOCUMENTS ON THE INTERNET

The Board will have rulemaking documents available for inspection throughout the rulemaking process on its web site. Copies of the text of the regulations in an underline/strikeout format, the Notice of Proposed action and the Initial Statement of Reasons can be accessed through the Standards Board's website at <http://www.dir.ca.gov/oshsb>.