

CALIFORNIA INDUSTRIAL HYGIENE COUNCIL

*Advancing public policy to improve the health and safety
of workers and the community.*

November 16, 2023

Via email: oshsb@dir.ca.gov

Occupational Safety and Health Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833

Re: CIH designation important to proposed revisions to lead regulations (8CCR5198, 1532.1, and 5155)

Dear Chair Thomas and Standards Board Members:

The California Industrial Hygiene Council (CIHC) provided written comments, dated April 20, 2023 (attached for reference). However, CIHC remains deeply concerned about the issue of exposure assessment data quality (specifically reference item 1 in our attached comments). CIHC implores the Board to incorporate the Certified Industrial Hygienist (CIH) designation in the proposed revisions, and require that the CIH designation is in the revised language of 8CCR5198, 1532.1 and 5155(e) as a vital assurance of exposure assessment data quality. The benchmark for competence in industrial hygiene is certification by the Board for Global EHS Credentialing (formerly the American Board of Industrial Hygiene). Certified Industrial Hygienist (CIH) is codified in California's Business and Professions (B&P) Code Sections 20700-20705.

CIHC understands that the Board may consider this request as self-serving considering our stakeholders. However, it is important for the Board to appreciate that CIHC's mission is "advancing public policy to improve the health and safety of workers and the community" as stated in our letterhead. The mission is our driver!

Getting it (the exposure assessment) right is essential for the proper application of the provisions of the lead regulation which ultimately affects both labor and management. Getting it right relies on the skill set of CIHs - the anticipation, recognition, evaluation, and control of hazards. This skill set encompasses understanding multiple complex factors including synergistic interactions, how to properly evaluate different exposure groups, how to evaluate data and data quality, and the application of resulting data for exposure control.

From a technical standpoint, there is a very narrow tolerance for error in the measurement of exposures, especially with the proposed action level of $2 \mu\text{g}/\text{m}^3$. One of the concerns regarding the proposed action level at $2 \mu\text{g}/\text{m}^3$, which the CIHC previously conveyed, is the high potential of the action level not being accurately assessed due to the constraints of detection limits in the current standard methods for air sampling and analysis. Errors can be introduced in numerous and subtle ways, which argues for some assurance about the expertise and skills of the evaluator.

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The correct application of most of the requirements in the lead regulations depends upon having verifiable, reproduceable exposure assessment results. If results are erroneously too low, employees will be harmed. If erroneously too high, employers will have unnecessary requirements and associated expenses imposed. Getting it right is important for the health of the workers and their families!

CIHC believes this request is appropriate for both labor and management support! CIHC respectfully implores the Board to require DOSH to add the CIH designation to the final draft revisions for these regulations, and recommends that the Board adopt this requirement. You, the Standards Board members are the ultimate arbiters of adopted Cal/OSHA regulatory requirements.

Thank you for your time and consideration. Please contact me on behalf of the CIHC at (916) 712-4547 or kwa-sacramento@att.net.

Very truly yours,
California Industrial Hygiene Council



Pamela Murcell, MS, CIH
President, CIHC

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April 20, 2023

Via email: OSHSB@dir.ca.gov

Sarah Money
Occupational Safety and Health Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833

Subject: Comments on Proposed Changes to Cal/OSHA's Lead Regulations

Dear Ms. Money:

The California Industrial Hygiene Council (CIHC) appreciates the opportunity to comment on proposed changes to Cal/OSHA's lead regulations, specifically 8 CCR 1532.1, 5155, and 5198. We appreciate the challenges this issue has presented, and the time from Board staff and DOSH staff on this issue.

CIHC represents occupational and environmental health professionals in California to advance public policy for the improvement of the health and safety of workers and the community. Exposure to lead is historically well-documented as a chronic health toxin. Control of exposure is critical. However, the goal with regulations should be to assure that requirements are effective for exposure control, appropriately applied, and can be correctly implemented.

CIHC has the following recommendations:

1. Incorporate assurances for exposure assessment data quality by requiring that air sampling is conducted by or under the supervision of a Certified Industrial Hygienist and that sample analysis be completed by an appropriately accredited laboratory. Competent exposure assessment and monitoring are critical because they are the basis/trigger for all other elements of compliance, including medical. If not accomplished competently, exposure can be understated, which would not serve employee interests, or, if overstated, would not serve employer interests.

Exposure assessment and monitoring is a core competency of the profession of industrial hygiene. The benchmark for competence in industrial hygiene is certification by the Board for Global EHS Credentialing (formerly the American Board of Industrial Hygiene). Certified Industrial Hygienist (CIH) is codified in California's Business and Professions (B&P) Code Sections 20700-20705.

The regulatory intent to emphasize the need for industrial hygiene competence is currently contained in 5155(e)(3), to wit "For the adequate protection of employees, the person supervising, directing or evaluating the monitoring and control methods shall be versed in this standard and shall be competent in industrial hygiene practice".

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To be consistent, this intent needs to be added to 1532.1 and 5198. Since 5155 also has a proposed change, **we recommend that the following language be consistent and included in 1532.1, 5198, and 5155: “The employer shall ensure that all exposure assessments and monitoring are performed by or under the supervision of a Certified Industrial Hygienist as codified in B&P Sections 2700-2705”.**

To have equivalent quality assurance for the analysis of samples collected for exposure assessments and monitoring, there exists an Environmental Lead Laboratory Accreditation Program (ELLAP) which is approved under the United States Environmental Protection Agency’s (EPA) National Lead Laboratory Program (NLLAP). An ELLAP accreditation covers air samples and matrices of paint chips, dust, soil, wipes, and bulk samples. We **recommend replacing** the exposure assessment and monitoring “assurance” language in 1532.1 and 5198 **with: “Laboratories used for lead analysis of samples collected for exposure assessment and monitoring shall be ELLAP accredited”.**

2. These requirements should also be applied to surface sampling. As discussed above in item 1, the recommendations for quality assurance should also be incorporated for surface contamination sampling and sample analysis.
3. Incorporate a requirement for quantitative assessment of surface cleanliness not just the qualitative approach currently addressed; in other words, establish a numerical value for the cleanliness of work place surfaces due to lead contamination; for example, 500 ug/ft², provided simply for illustration. References are available through the California Department of Public Health and US Environmental Protection Agency for data on applicable numerical values.
4. Establish the action level at 5 ug/m³, which would be half of the proposed new PEL. This is a widely accepted and utilized approach for the relationship of an action level to the corresponding PEL for occupational health exposure evaluation. Additionally, an action level of 5 ug/m³ would address the concerns of the proposed action level at 2 ug/m³ not being accurately assessed due to the constraints of detection limits in the current standard methods for sampling and analysis.

The sampling method and analytical capabilities for lead measurements should be considered in the proposed regulation. For example, the National Institute for Occupational Safety and Health indicates that lead air samples can be collected at an airflow rate of 1-4 liters per minute, with most samples being collected at 2 LPM to achieve a detection limit of 2 ugs. As an example of the detection limit concern, the Wisconsin Occupational Health Laboratory reports an analytical sensitivity of detection at 2 ugs for an 8-hour sample at 2 LPM. The Wisconsin Occupational Health Laboratory reports any value lower than 2 ugs of detected lead in a sample as less than 2 ugs because the error on that value is greater than +/- 20% in the Wisconsin laboratory.

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Further, consider that the EPA took laboratory analytical sensitivity into consideration when the regulatory values were originally set and again when they were lowered. During regulatory proceedings, EPA requested laboratory performance data from AIHA ELPAT participants for detection and reporting limits.

5. Replace the language in subsection (f), Respiratory Protection, with language analogous to that used in more recently adopted substance-specific standards such as that presented in the respirable crystalline silica regulations.

CIHC requests *removal of the exclusion* of the use of filtering facepieces by workers who may need to use a respirator for exposures up to 10x the proposed lead PEL. Further, CIHC recommends replacing the proposed subsection (f) in 1532.1 and 5198 with something similar to, or even identical language, regarding respiratory protection as from the respirable crystalline silica standard (Title 8 CCR 5204, subsection (g) as shown below):

“(g) Respiratory protection.

(1) General. Where respiratory protection is required by this section, the employer must provide each employee an appropriate respirator that complies with the requirements of this subsection and Section 5144. Respiratory protection is required:

(A) Where exposures exceed the PEL during periods necessary to install or implement feasible engineering and work practice controls;

(B) Where exposures exceed the PEL during tasks, such as certain maintenance and repair tasks, for which engineering and work practice controls are not feasible;

(C) During tasks for which an employer has implemented all feasible engineering and work practice controls and such controls are not sufficient to reduce exposures to or below the PEL; and

(D) During periods when the employee is in a regulated area.

(2) Respiratory protection program. Where respirator use is required by this section, the employer shall institute a respiratory protection program in accordance with Section 5144.”

6. For subsection (d), Exposure Assessment, present the requirements based on results of exposure evaluation in a table format. The proposed text presentation of these requirements with excessive verbiage is confusing and difficult to follow.

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Subsection (d) Table format. Exposure Assessment. An **example** of presenting very difficult to follow information in a table format rather than excessive confusing text; only a couple of the proposed requirements are included in the example below.

(A) Level 1 trigger task	Where lead is present, until the employer performs an employee exposure assessment, assume employee is exposed above the PEL, and not in excess of ten (10) times the PEL, and Shall implement interim protection measures per (d)(2)(E).
(B) Trigger tasks – not listed	With regard to tasks not listed as Level 1 trigger tasks, until the employer performs an employee exposure assessment, assume an employee performing such task may be exposed to lead in excess of the PEL, and Shall implement interim protection measures per (d)(2)(E).

- Also, for subsection (j), Medical Surveillance, present the requirements in a table format based on the various criteria that trigger medical evaluation. The proposed text presentation of these requirements with excessive verbiage is confusing and difficult to follow.

Subsection (j) Table format. Minimum Requirements for Medical Surveillance. An **example** of presenting very difficult to follow information in a table format rather than excessive confusing text; only a couple of the proposed requirements are included in the example below.

A. Initial blood lead level (BLL) test required to be made available.	Prior to assignment to work where exposure to lead is or reasonably expected to be \geq the action level (2 ug/m^3 as an 8-hour TWA); and Prior to performing trigger tasks, and an exposure assessment has not been completed.
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B. Additional BLL tests required to be made available.	For employees: who's last BLL was ≥ 10 ug/dl; or who are exposed \geq action level for ≥ 10 days in any 12 consecutive months; or who are exposed on any day ≥ 100 ug/m ³ as an 8-hour TWA; or who perform trigger tasks, and an exposure assessment has not been completed*. *Note that additional blood lead tests are not required for an employee who only performs level 1 trigger tasks and who performs these level 1 trigger tasks for < 10 days in any 12 consecutive months, unless their last BLL was ≥ 10 ug/dl.
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8. And similarly for subsection (k), Medical Removal Protection, present the requirements based on results of blood lead levels in a table format. The proposed text presentation of these requirements with excessive verbiage is confusing and difficult to follow.

CIHC is concerned that this regulation is taking a “one size fits all approach”, which simply will not work when exposure to lead is as varied as the industries in which potential exposure to lead is a concern. Given the extensive modifications to the proposed changes that are in the rule-making package compared to the previous draft from November 2016, and the broad application of the proposed changes, CIHC recommends reconvening the advisory committee to discuss an effective approach on application of proposed changes.

CIHC is disappointed that additional advisory committee meetings were not convened to allow stakeholder participation in advance of the release of this rulemaking package.

Thank you for your time and consideration. Please contact me on behalf of the CIHC at (916) 712-4547 or kwa-sacramento@att.net.

Very truly yours,
California Industrial Hygiene Council



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