

CALIFORNIA INDUSTRIAL HYGIENE COUNCIL

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September 30, 2025
Via email: rs@dir.ca.gov
Cc: eberg@dir.ca.gov

Mr. Eric Berg
Deputy Chief of Health
Cal/OSHA
Oakland, California

RE: Discussion Draft for Proposed Regulation on Occupational Exposure to Plume in Health Care

Dear Mr. Berg,

The California Industrial Hygiene Council (CIHC) appreciates the opportunity to comment on the discussion draft for a proposed regulation on Occupational Exposure to Plume in Health Care. Our comments are based on the discussion draft dated August 29, 2025, and CIHC offers the following comments and suggested changes.

In general, CIHC supports the development of a General Industry regulation related to the prevention of workplace exposure to plume in healthcare settings and provides the following comments for your consideration.

§51XX(b)

CIHC recommends revising the definition of “plume” as follows:

- (11) “Plume” means airborne contaminants generated from the use of energy-based devices, such as electrosurgical devices; or electrocautery devices, or mechanical tools used during surgical, diagnostic, or therapeutic procedures.

§51XX(c)

For the written Exposure Control Plan, CIHC recommends including a statement regarding development of the program under the guidance of a qualified person, an example of whom may be a CIH or CSP.

§51XX(c)(2)(C)

Reword this subsection as follows “Effective procedures for identifying and evaluating occupational hazards associated with plume to include identifying unsafe conditions, work practices, and potential exposure in accordance with 3203(a)(4).” Note that 3203(a)(4) is about hazard identification and evaluation with periodic inspections. If the goal of this subsection is to simply identify and evaluate occupational **exposure** to plume (presumably an airborne

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contaminant), then the better reference would be 5155(e)(3). Another wording option would be to keep the proposed language for this subsection but delete the reference to 3203(a)(4).

§51XX(c)(2)(F)

CIHC supports the language that requires the establishment of procedures to actively involve employees and authorized employee representatives in establishing the elements of the Exposure Control Plan. This approach is collaborative and allows potentially exposed workers and their representatives to provide input on exposure control measures that would be practical and effective.

§51XX(d)(1)(B)

The current language references that a minimum total air exchange rate of at least 20 air changes per hour shall be used in addition to other engineering control measures. Instead, CIHC recommends that the “NFPA 99, Healthcare Facilities Code (2024)” be referenced, which focuses on air filtration rather than rigid specifications for air changes or exhaust duct designs that may not reflect actual exposure risks. Filtered air may be recirculated rather than exhausted to outdoors, which supports a common-sense safety-based approach without overengineering.

§51XX(d)(3)

The proposed language currently requires that respiratory protection be used in accordance with section 5144 when engineering and administrative controls “do not prevent plume from contacting the respiratory tract of employees.” CIHC’s position is that this requirement lacks clarity. How would employers feasibly measure or otherwise evaluate whether plume is in contact with an employee’s respiratory tract? Visual assessment alone would be insufficient to evaluate contact as plume components are not always visible.

The need for respiratory protection should be based on an exposure determination with exposure assessment performed by a qualified person and compared to established exposure limits or reference levels. Such an exposure determination could be made with quantitative sampling of one or more plume components for which a Permissible Exposure Limit (PEL) is established.

CIHC recommends revising this section as follows:

- (3) Respirators that provide protection against particulates and organic vapors shall be used in accordance with section 5144 when engineering controls and administrative controls do not effectively control exposure to plume components to below established PELs in accordance with 5155(e)(1) and as determined by exposure assessment performed by a qualified person, an example of which is a Certified Industrial Hygienist (CIH). ~~not prevent plume from contacting the respiratory tract of employees.~~

CIHC further recommends that examples of plume components with established PELs that could be evaluated for exposure assessment be provided in the regulation or as an appendix to the regulation; for example, respirable particulates not otherwise regulated (5 mg/m³).

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Where the above recommendations are not adopted, CIHC recommends that language be proposed to further clarify how employers will effectively evaluate whether they have prevented surgical plume from contacting the respiratory tracts of employees.

§51XX(d)(4)

CIHC recommends revising this section as follows:

- (4) The employer shall provide and ensure employees use appropriate eye protection where plume may ~~contact~~ affect the eyes of an employee.

§51XX(e)

CIHC recommends revising this section as follows:

- (e) Training.** The employer shall provide effective training to all employees who have occupational exposure to plume, including new employees and to exposed employees' supervisors. The initial training shall be provided when the written procedures are first established and annually thereafter. Training shall include at least the following elements as applicable to the ~~employee's assignment~~ employees' assignments:

§51XX(e)(5)

CIHC recommends the following change to this training topic:

- (5) The appropriate use of the specific plume evacuation systems utilized by the employer, including the employer's written exposure control plan and procedures required by subsection (c);

§51XX(f)(3)(A)

CIHC recommends the following changes to §51XX(f)(3)(A) to ensure consistency with §51XX(d)(1)(A)(4).

- (A) The employer shall maintain records that the plume evacuation system conforms to the minimum requirements in subsection (d)(1)(A) and which demonstrate that it is used, constructed, installed, inspected, tested, operated, and maintained in accordance with the manufacturer's instructions. These records shall be retained for at least 5 years.

The CIHC, founded in 1990, represents the occupational and environmental health profession in California and is affiliated with the national American Industrial Hygiene Association (AIHA), an 8,000-member organization. The CIHC is formally comprised of occupational and environmental health and safety professionals who are members of the five California AIHA local sections represented by the CIHC Board of Directors. The CIHC's mission is to provide sound scientific and technological input to the regulatory and legislative process, and establish a legislative presence in the state Capitol through professional representation.

CIHC appreciates the opportunity to provide comments to the Division. Please let us know if there are any questions concerning the above-stated comments. On behalf of CIHC, I may be reached by telephone at 858-247-1050 or email at megan.canright@facs.com.

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Very truly yours,
California Industrial Hygiene Council



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President, CIHC