

**To: Occupational Safety and Health Standards Board (OSHSB)**

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**From:** Shourish Mukherjee,

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**Subject:** Petition for Rulemaking: Amendment to Section 5144(a) Regarding Required Signage at Construction Sites.

Dear Executive Officer,

I am (The Petitioner) writing to formally petition the Occupational Safety and Health Standards Board for an amendment to Title 8, Section 5144 of the California Code of Regulations.

**1. Nature of the Proposed Amendment.** The Petitioner requests that the Board amend Title 8, California Code of Regulations, Section 5144, Respiratory Protection, specifically subsection (a) "Permissible Practice," to include a new requirement for mandatory signage at **all** construction sites where respiratory hazards exist.

**Proposed addition:** The petitioner proposes the addition of a new paragraph, **(a)(3)**, to read as follows:

In construction operations where respiratory protection is required under this section, the employer shall post clearly visible and conspicuous signage (including infographics) at all points of entry to the affected work area. Signs shall meet the visibility requirements of Section 3340. Such signs shall notify employees and entrants of the respiratory hazard. Signs shall be in English and the dominant language(s) of the workforce.

**2. Reason for the Request.** While Section 5144 currently outlines the hierarchy of controls and the provision of respirators by the employer, this petition enhances a specific requirement for point-of-hazard notification in the dynamic environment of a

construction site and is necessary to address critical safety gaps in the construction industry.

- **Preventing Systemic, Chronic, and Accidental Exposure:** Construction sites are dynamic, often involving transient workers and multiple subcontractors. This amendment would allow "hazard zone" signage for general respiratory hazards, leading to worker and bystander exposure to dust, respirable crystalline silica, fumes, vapors, asbestos fibers, and gases.
- **Consistency with Other Standards:** Specific regulations (e.g., Lead §1532.1, Asbestos §1529) already require signage. Amending §5144(a) provides a uniform safety standard for all respiratory hazards, ensuring "clarity and consistency" as required by the Office of Administrative Law.
- **Language Accessibility:** With a diverse workforce, requiring **multilingual signage with infographics** ensures all employees understand where PPE is mandatory, reducing the risk of non-compliance due to communication barriers or lack of situational awareness.
- **Clarity:** This amendment provides a clear, enforceable standard for Cal/OSHA inspectors to ensure employers are communicating active hazards effectively.

### 3. Supporting Documentation and References:

- An OSHA recognition of wood dust as a hazard and possible solutions
  - <https://www.osha.gov/wood-dust/hazards>
- An OSHA recognition of Silica Dust as a hazard of construction and related infographics:
  - <https://www.dir.ca.gov/dosh/etools/08-019/hazards.htm>
- Although this small study was done on factory workers, the effectiveness of posting signs in the workplace is still applicable:
  - [https://www.researchgate.net/publication/304396217\\_Evaluation\\_of\\_the\\_Perception\\_of\\_Workplace\\_Safety\\_Signs\\_and\\_Effective\\_Factors](https://www.researchgate.net/publication/304396217_Evaluation_of_the_Perception_of_Workplace_Safety_Signs_and_Effective_Factors)
- [Cal/OSHA 2025 Wildfire Smoke updates](#) (showing the board's commitment to visual warnings for air quality).
- [Recent OSHSB decisions regarding engineered stone and silica dust](#) (Petition 597/609).
- How comprehension affects safety sign interpretation in construction work
  - <https://www.sciencedirect.com/science/article/pii/S2405844023039518>

- NIH Study : Work-related respiratory health conditions among construction workers: a systematic narrative review
  - <https://pmc.ncbi.nlm.nih.gov/articles/PMC10410849/>

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**Subject:** Petition for Amendments to the Cal/OSHA document titled, "[Working Safer and Easier" for Janitors, Custodians and Housekeepers](#) referred to in the [Appendix A \(Non-Mandatory\) of Section 3345](#).

Dear Executive Officer,

I am (The Petitioner) writing to formally petition the Occupational Safety and Health Standards Board for amendments to Cal/OSHA document titled, "[Working Safer and Easier" for Janitors, Custodians and Housekeepers](#) ("The Document") referred to in the [Non-Mandatory Appendix A of Section 3345](#) (in Title 8/Subchapter 7/Group 2/Article 7) of the California Code of Regulations.

**Nature of the Proposed Amendments:**

- a.
- b.
- c. **Chapter 13 ("Chemicals**
- d. **and Their Health Effects"):**
- e. The petitioner proposes that the section titled

- f. “Hazardous
- g. chemicals can make you sick”
- h. be expanded to explicitly include
- i. *"diseases*
- j. *of the respiratory tract"*
- k. as a serious chronic health risk for janitorial workers.
- l.

- i.

- ii.

- iii. **Current:**

- iv. Those solvents pose many hazards:

- v. from mild health effects, such as skin and eye irritation, to long-term diseases, such as heart and kidney failure, sterility, or cancer.

- vi.

- vii.

- viii.

- ix. **Proposed:**

- x. Those solvents pose many hazards: from mild health effects, such as skin and eye irritation, to long-term diseases, such as heart and kidney failure,

- xi. *diseases of the respiratory tract,*

- xii. sterility, or cancer.

- xiii.

- m.

- n.

- o. **Chapter 15 (“Using**

- p. **Personal Protective Equipment”):**

- q. The petitioner proposes

r. to add a visual section titled “Respiratory Protection”.

s.

i.

ii.

iii. **Current:**

iv. Sections provide pictures for Eye Protection,

v. Hand Protection

vi. and Feet protection.

vii. The only reference to respiratory protection is the following sentence: “For some tasks you may need respiratory protection, which requires specialized procedures and training. (For further guidance on respiratory protection, refer to the Cal/OSHA publication,

viii. Respiratory Protection in the Workplace: A Practical Guide for Small-Business Employers.)”

ix.

x.

xi.

xii. **Proposed:**

xiii.

1.

2.

3. Add a separate section titled “Respiratory

4. Protection”

5. **showing pictures**

6. of people wearing different types of masks.

7.

8.

9.

10. Move the following sentences “For

11. some

12. tasks you may

13. need respiratory protection, which requires specialized procedures and training. (For further guidance on respiratory protection, refer to the Cal/OSHA publication, Respiratory Protection in the Workplace: A Practical Guide for Small-Business Employers.)”

14. under this section.

15.

16.

17.

18. Change the sentence to: “For

19. all

20. tasks you

21. will

22. need respiratory protection, which requires specialized procedures

23. and training.”

24.

t.

u.

v. **Document Visuals:**

w. The petitioner proposes that all the pictures in The Document **show janitors**

x. **wearing masks while performing their duties.**

y.

i.

ii.

iii. **Current:**

iv. Infographics and pictures throughout The Document currently show janitors

v. cleaning floors, walls, bathrooms, handling garbage, and cleaning supplies. Only

vi. *one*

vii. picture shows a janitor wearing a mask.

viii.

ix.

x.

xi. **Proposed:**

xii. Infographics and pictures throughout The Document would be

xiii. modified to show janitors cleaning floors, walls, bathrooms, handling garbage,

xiv. and cleaning supplies while wearing masks.

xv.

xvi.

**Reason for request:**

**a.**

**b.**

c. Chapter 13 of The Document ("Chemicals

d. and Their Health Effects") states that the "nose is the most

e. common way chemicals enter the human body" and emphasizes breathing as a primary exposure route. The text acknowledges chemical entry; and these workers are frequently exposed to aerosolized chemicals and airborne pathogens, making respiratory health a critical

**f.** area for mandated safety standards.

**g.**

**h.**

**i.**

**j.** The importance of respiratory protection cannot be overstressed. The

**k.** current sentences in Chapter 15 referring to respiratory protection can be easily overlooked or may be deemed unimportant by the reader.

**l.**

**i.**

**ii.**

**iii.** See the supporting document under Section 3a(i) titled “[The](#)

[iv. Long Term Impact of Cleaning on the Lungs](#)”. The main findings

**v.** of this paper were that women who cleaned regularly experienced quicker lung decline over a period of 20 years. The decline in lung capacity measured would be equivalent to smoking 10-20 cigarettes a day for that same timeframe.

**vi.**

**vii.**

**viii.**

**ix.** See also the supporting document under Section 3a(ii) titled

“[Cleaning](#)

[x. at Home and at Work in Relation to Lung Function Decline and Airway Obstruction](#)”.

**xi.** This study reinforces the conclusion reached by the first paper, and goes one step further, by theorizing that repeated low-grade irritation damages the mucous membranes of the lungs.

**xii.**

**m.**

**n.**

**o.** It's well known that pictures

- p. can significantly influence a reader's mindset by bypassing logic to speak directly to the emotional centers of the brain. Therefore visuals depicting a solution or a specific safety practice, can inspire behavioral change and foster a sense of self-efficacy.
- q. Moreover, people typically retain roughly 65% of visual content three days after viewing it, compared to only 10% of written content. Messages with images attract more audience attention and hold it for longer periods than text alone and are completely agnostic
- r. to the language barriers that some of the workers may face. Source: [The](#)
- s. [picture superiority effect in recognition memory: A developmental study using the response signal procedure](#)
- t.

**Prevention is better than the cure:** Triggering changes in the workers' mindset to adopt simple self-enabled safety standards will keep them safe, healthy and productive now and avoid burdening the State's Healthcare system in the future.

#### **Supporting Information and References:**

- a.
- b.
- c. Respiratory Impact:
- d. The respiratory tract serves as a primary filter, trapping pollutants that can lead to long-term health damage if not properly mitigated.
- e.
  - i.
  - ii.
  - iii. [The](#)
  - iv. [Long-Term Effects of Cleaning on the Lungs](#)
  - v.
  - vi.

vii.

viii. [Cleaning](#)

[ix. at Home and at Work in Relation to Lung Function Decline and Airway Obstruction](#)

x.

f.

g.

h. Necessity:

i. Including these diseases aligns with the Board's mission to ensure "reasonable and enforceable standards" for workplace safety.

j.

k.

l.

m. Consistency:

n. This change would harmonize the janitorial guidelines with existing Aerosol Transmissible Diseases (ATD) standards (Title 8, Section 5199), which already recognize the vulnerability of the respiratory tract to inhaled pathogens.

o.

p.

q.

r. Statistics:

s. [The](#)

[t. picture superiority effect in recognition memory: A developmental study using the response signal procedure](#)

u.

I look forward to the Board's evaluation of this proposal and am available to provide further testimony at an upcoming [OSHSB Public Meeting](#).

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Thank you,

Shourish Mukherjee