

Explanation of Changes OSHA Proposed for the Chemical-Specific Standards

This document explains OSHA's reasoning for each of the types of changes it has proposed in the chemical-specific standards and provides examples of some of those changes. There are several types of changes described below:

- changes that eliminate duplication;
- changes that increase flexibility by allowing additional types of respirators that provide equivalent protection; and
- changes that allow the use of additional types of particulate filters.

Change	Justification
Eliminate Duplication: Rely on Existing Provisions in 29 CFR 1910.134	
Rely on 1910.134 for when respirators are used (all except 13 Carcinogens)	How are the provisions duplicative? Most of the chemical-specific standards currently list specific circumstances under which employers must provide respirators to employees. OSHA is proposing to delete those lists and rely instead on the Respiratory Protection standard. The Respiratory Protection standard would require respirators in those same circumstances because it requires employers to provide respirators when they are "necessary to protect the health" of employees (1910.134(a)(2)). When that provision is paired with the permissible exposure limits in the chemical-specific standards, it ensures that employers understand when respirators are necessary for worker health. How would employees still be protected? The requirement for respirator use would remain unchanged, as any exposure above the exposure limits creates a condition where respirators are necessary to protect employee health. For example, the Inorganic Arsenic standard requires respirators to be used in regulated areas during periods necessary to install or implement feasible engineering or work-practice controls. Because regulated areas are required when exposures are in excess of the permissible limit, respirators would be required under 1910.134(a)(2) as they are needed to protect the health of employees. This is consistent with OSHA's intent to use its revised Respiratory Protection standard (29 CFR 1910.134) as a foundation for respirator selection in chemical-specific standards, which is what

	this proposed change would do. OSHA clarified in the preamble for these proposed rulemakings that it did not intend to change the regulatory burden and this would only remove duplication.
Rely on 1910.134 for respirator training requirements (Inorganic Arsenic, Cadmium, Asbestos, Lead)	How are the provisions duplicative? Several of the chemical-specific standards have training requirements related to respirators that OSHA is proposing to remove because they unnecessarily duplicate the general provisions in the Respiratory Protection standard (1910.134(k)). For instance, Cadmium includes a requirement to train on “[t]he purpose, proper selection, fitting, proper use, and limitations of respirators...” and the Respiratory Protection standard requires training on “the proper use of respirators, including putting on and removing them, any limitations on their use, and their maintenance.” How would employees still be protected? The Respiratory Protection standard contains essentially the same requirements for respirator training, which would still apply to workers. The chemical-specific standards that include requirements for training about protective clothing and other topics would retain those provisions since those are not covered in 1910.134. For example, employers would still be required to provide training on workplace exposures, controls and work practices, hygiene, etc., under the chemical-specific standards.
Rely on 1910.134 for medical evaluations (Methylene Chloride)	How are the provisions duplicative? The Methylene Chloride standard and the Respiratory Protection standard (1910.134(e)) both require medical evaluations. OSHA is proposing to delete the medical evaluation requirements in the Methylene Chloride standard and rely instead on the medical evaluation requirements in the Respiratory Protection standard. How would employees still be protected? The Respiratory Protection standard (1910.134(e)) is more comprehensive regarding medical evaluations: • The Methylene Chloride standard only requires employers to have a healthcare provider evaluate an employee’s ability to use respiratory protection and provide written findings to the employee and employer;

	The Respiratory Protection standard includes those requirements <i>plus</i> requirements for how the medical evaluation must be conducted, when to provide follow-up examinations, and the information that must be provided to the healthcare provider, among other things. Removing the medical evaluation language from the Methylene Chloride standard would only reduce redundancy and would not remove any employee protections.
Increase Flexibility: Allow Respirators with Equivalent Protection	
Move to requirement based on APF (13 carcinogens, 1,3-Butadiene, Asbestos)	How does the proposal increase compliance options? Several of the chemical-specific standards have unnecessarily prescriptive requirements for respirators, which OSHA is proposing to delete and replace with equivalent APF-based requirements. This new APF requirement would be used in conjunction with Table 1 in the Respiratory Protection standard, providing more compliance options without compromising worker protections. How would employees still be protected? For each of these provisions, OSHA has reviewed the existing, prescriptive requirements and proposed replacing them with an APF requirement that matches the APF of the prescriptive respirator requirement. This would allow employers to choose additional types of respirators with the same APF and also ensure that any other respirators employers provide to employees are equally or more protective. For instance: - For work involving certain carcinogens, the current 13 Carcinogens standard requires a NIOSH-certified air-purifying, half-mask respirator with particulate filters. That type of respirator has an APF of 10 under Table 1 of the Respiratory Protection standard. - OSHA has therefore proposed changing that provision to require any NIOSH-certified respirator for particulates that has an APF of at least 10. This change would be consistent with OSHA's intent to use the Respiratory Protection standard, which incorporates more recent technology and practices for respirator use, as a foundation for respirator selection in chemical-specific standards.
Allow half mask and eye or skin protection	How does the proposal increase compliance options?

(1,3-Butadiene, Methylene Chloride, Ethylene Oxide, Cadmium, Lead)	Several of the chemical-specific standards currently have requirements for full facepiece respirators because the chemical may cause eye or skin irritation or damage. OSHA is proposing to remove those requirements in order to allow employers to provide half mask respirators along with appropriate eye or face protection to prevent eye or skin irritation. This would increase compliance options without compromising worker protections. How would employees still be protected? Other provisions in the chemical-specific standards already require protective work clothing for skin or eye irritation. In addition, the proposals do not reduce the level of respiratory protection that is required based on exposure levels. Employers would still have to select respirators that meet the required APF for the anticipated exposures. This ensures that employers still must provide equivalent protection. For example, employees who experience eye irritation from cadmium are currently required to wear a full facepiece respirator. Under the revision, employees would be permitted to use a half mask respirator and goggles or face protection provided it is sufficient to reduce eye irritation.
Allow alternate canister locations (Ethylene Oxide, Benzene, Inorganic Arsenic)	How does the proposal increase compliance options? Some of the chemical-specific standards specify that employers must provide respirators equipped with canisters that are mounted in a specific way, such as front- or back-mounted or chin-style canisters. OSHA is proposing to remove these specifications in order to allow employers to select from a wider range of respirators. For example, Ethylene Oxide currently requires a respirator with a front- or back-mounted canister. Under the proposed revision, a respirator with a chin-mounted canister could be used. This would provide more compliance options without compromising worker protections. How would employees still be protected? The Respiratory Protection standard already requires that employers must provide respirators that are appropriate for the chemical state and physical form of the contaminant and also must consider workplace and user factors that affect respirator performance and reliability. Thus, employers who want to take advantage of this added flexibility would still have to factor in canister location in selecting a respirator.

Allow Use of Additional Particulate Filters	
Allow use of additional particulate filters (Inorganic Arsenic, Cadmium, Methylenedianiline, Asbestos, Lead)	How does the proposal increase compliance options? Several of the chemical-specific standards currently require that employers provide respirators equipped with HEPA filters to protect against exposures to particulates. OSHA is proposing to remove those requirements and rely on the Respiratory Protection standard (1910.134(d)(3)(iv)(B)), which allows employers to provide air-purifying respirators with HEPA filters or filters certified for particulates by NIOSH under 42 CFR part 84. Removal of the requirement to use HEPA filters would expand the types of filters employers can select for use against particulates without compromising worker protection. How would employees still be protected? Alternative filters that NIOSH has certified as sufficiently protective against particulates are now available. OSHA included the specific requirement for the use of HEPA filters when the chemical-specific standards were promulgated because there were notable limitations on the testing and certifying of other available filters at the time. In 1995, NIOSH published revised requirements for testing and certification procedures and recodified the previous certification standards for other respirator classes. The HEPA filter requirement is not part of the revised NIOSH standard because additional types of filters have been certified for protection from particulates and can be used with powered and non-powered air-purifying respirators. OSHA believes that since 1995 these NIOSH testing and certification requirements have ensured that all particulate filters certified under 42 CFR part 84 are efficient in preventing the penetration of submicron-sized particles. OSHA recognized this when it issued a revised Respiratory Protection standard in 1998. OSHA has issued other substance-specific standards since OSHA's revised Respiratory Protection standard and NIOSH's revised certification requirements under 42 CFR part 84 were issued and has not incorporated a requirement for HEPA filters in similar respirator provisions in those rules. Not all of these filters provide identical filtration efficiency, but for many chemicals they all provide sufficient protection. If there are cases where only the maximally efficient filters would be

	sufficient, the requirement for an exposure assessment under the Respiratory Protection standard will ensure that employers identify that situation and choose an appropriate respirator.
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