



Temporary Guidance

Strategies for Optimizing the Supply of N95 Respirators for Wildfire Smoke Events During Respirator Shortages

September 28, 2020

This guidance will help maximize the supply of disposable filtering facepiece respirators, such as N95s, during future supply shortages caused by the COVID-19 pandemic. This guidance only applies to use of respirators to protect workers from wildfire smoke ([title 8 section 5141.1](#)) and is subject to change as conditions change.

All employers must continue efforts to obtain a sufficient supply of NIOSH-certified respirators (e.g., N95 respirators) through private and commercial supply chains. Many manufacturers and distributors make respirators available to employers through allocation protocols and commercial retailers.

To assist employers in identifying available supply, Cal/OSHA has posted a list of vendors who represent they have at least 100,000 NIOSH-certified disposable N95 respirators in stock and available for delivery. Inclusion on this list is not an endorsement of the listed business nor is it a warranty of their products. The non-exhaustive list can be found at <https://www.dir.ca.gov/dosh/wildfire/Strategies-Optimizing-Supply-N95-Respirators-Wildfires.pdf>, on the Department of Industrial Relations website.

Face coverings and masks, such as bandanas, neck gaiters, and surgical masks, do not protect against wildfire smoke and cannot be used to comply with section 5141.1.

It is illegal to discipline, discharge or lay off an employee for exercising their health and safety rights, including but not limited to the right to refuse to work in violation of a Cal/OSHA health or safety standard when the violation would create a real and apparent hazard for the employee or fellow employees. Please see Labor Code sections 98.6, 232.5, 244, 245-249, 1019, 1102.5, 6310 and 6311 for information on prohibited discriminatory action against employees.

The following methods, in order of effectiveness, are to be used to comply with section 5141.1 when the AQI for PM_{2.5} is greater than 150 due to wildfire smoke. Parts 3.0 through 6.0, listed below, while not in compliance with the standard, will be considered a good faith effort to comply, and following them will not subject the employer to a citation if compliant respirators are not obtainable. A mixture of methods may be used, provided more effective protections are implemented first.

In order to demonstrate good faith compliance prior to using a listed method that includes use of a respirator that is not NIOSH-certified, employers must be able to demonstrate that they are unable to obtain compliant, N95 or equivalent certified respirators despite good faith efforts. An example of demonstrating good faith efforts is documentation, such as a pending purchase order or a business record of calls to suppliers attempting to obtain NIOSH certified respirators. Employers must be able to demonstrate this good faith effort before Cal/OSHA will consider the use of a non-NIOSH certified respirator to be a good faith effort to comply with section 5141.1.



1.0 Engineering and administrative controls

Effective engineering and administrative controls may reduce or eliminate the need for respirators. Such controls must be implemented when feasible and/or practicable. They include locating the worksite within buildings, structures, or vehicles where the air is filtered; changing outdoor work locations to places with better air quality; changing work schedules, limiting the time that employees work outdoors, and postponing outdoor work.

2.0 Use any available or obtainable NIOSH certified particulate respirators instead of NIOSH certified disposable filtering facepiece respirators (N95s)

Section 5141.1 allows any NIOSH-certified particulate respirator to be used to protect workers from PM_{2.5} from wildfire smoke. Such respirators include quarter mask reusable respirators (similar in appearance to N95s, but reusable), elastomeric half-mask respirators, elastomeric full-facepiece respirators, powered air-purifying respirators (PAPRs) equipped with particulate filters, and others. NIOSH has a list of all certified particulate respirators on their [Certified Equipment List webpage](#).

Reusable respirators are designed to be cleaned, disinfected, maintained, and reused indefinitely as long as the respirator is in good working order. The filters need to be changed in accordance with the manufacturer's instructions or when breathing difficulty increases.

3.0 Use of expired NIOSH certified filtering facepiece respirators (N95s)

NIOSH has approved the use of certain expired filtering facepiece respirators if they were stored in accordance with manufacturer's recommendations. Use of these expired respirators is allowed if they have been stored in accordance with the manufacturers' recommendations. For a list of the allowed expired respirators, see [Release of Stockpile N95 Filtering Facepiece Respirators Beyond the Manufacturer-Designated Shelf Life: Considerations for the COVID-19 Response](#).

Before use, employers must inspect the respirators and ensure they are clean and in good working order and that the straps have not dried out, cracked, or lost their elasticity.

Respirators not on the NIOSH list or not stored in accordance with the manufacturer's recommendations should not be used.

4.0 Non-employer supplied NIOSH certified respirators (N95s or reusable respirators)

Employers must allow employees to wear a non-employer supplied respirator if the employer fails to provide an adequate and compliant NIOSH certified particulate respirator. Title 8 section 3380 permits employee-provided personal protective equipment (PPE) as long as the employer ensures the PPE complies with Cal/OSHA standards and is properly maintained.

Employers who do not allow employees to wear non-employer supplied PPE when the employer has not provided adequate PPE may be subject to retaliation claims under Labor Code sections 1102.5 and 6310 through 6312.

5.0 Limited reuse of NIOSH certified filtering facepiece (N95) respirators

Reuse of a filtering facepiece respirator occurs when a worker uses one disposable respirator for more than one shift. Limited reuse is allowed during respirator shortages, but a disposable respirator cannot be reused by anyone except the same worker who wore it initially.



Respirators should be removed and carefully stored in a clean paper bag when not in use. Employees should wash their hands before taking off and putting on the respirator. Storage in a paper bag will allow for evaporation of moisture from the respirator until it is reused.

Employers must ensure that the respirators are kept clean, sanitary, and in good working order at all times. The respirator must be discarded if at any time it becomes contaminated, does not fit or function correctly, becomes difficult to breathe through, or is deformed from sweat or wet conditions.

Studies show that some disposable respirators can fail to fit correctly and not protect the wearer after one full-time shift. Disposable respirators cannot be worn more than one full-time shift for protection against wildfire smoke unless the employer demonstrates that they were not able to obtain NIOSH certified respirators. Reuse of disposable respirators must not exceed 3 full-time shifts, regardless of shortages.

6.0 Non-NIOSH certified respirators with head straps when AQI for PM 2.5 is 175 or lower

Some foreign certified respirators, such as certain KN95s, can be used for wildfire smoke if the employer demonstrates all of the following:

- The employer attempted to obtain NIOSH certified respirators, but none were available.
- The AQI for PM_{2.5} is 175 or lower.
- The respirator has two head straps, and does not have ear loops.
- The respirator provides a **minimum** filtration efficiency of 95 percent as determined by NIOSH testing.

NIOSH lists filtration efficiency for foreign respirators at:

<https://www.cdc.gov/niosh/npptl/respirators/testing/NonNIOSHresults.html>.



The table below lists foreign certified respirators that have two head straps and 95 percent minimum filtering efficiency according to NIOSH as of September 1, 2020. Respirators are added to the NIOSH list frequently and employers should monitor that list for respirators that meet the minimum filtration efficiency criteria and have two head straps.

Examples of Foreign Certified Respirators with Two Head Straps and Minimum 95 Percent Filtering Efficiency Excerpted from International Assessment Results – Not NIOSH-approved as of September 1, 2020

Manufacturer	Model Number/Product Line	International Standard	Filtration efficiency		NIOSH Test Report
			Maximum	Minimum	
3M	9502+	GB2626	98.56	98.24	2020-168.1 2020-176.1 2020-156.2
Guangzhou Powecom Labor Insurance Supplies Co., Ltd.	9502 Particle filtering half mask (non-medical)	EN149	99.86	99.62	2020-370.1
Honeywell Safety Products (Shanghai) Co., Ltd.	H801 Particulate Respirator	GB2626	99.32	98.40	2020-61.1
Hunan Wondo Medical Supplies Co., Ltd.	Medical Protective Mask (Non-Sterile) – Foldable Type	GB19083	97.24	96.07	2020-264.1
Jiande Chaomei Daily Chemicals Co., Ltd.	CM 9527	GB19083	99.29	97.87	2020-39.1
Jiande Chaomei Daily Chemicals Co. Ltd.	F-Y3-A Medical Protective Masks	GB19083	99.68	97.75	2020-77.3
Jiande Chaomei Daily Chemical Co., Ltd.	6002A-1	GB2626	99.36	98.16	2020-355.1
Laianzhi	KLT01	GB2626	99.68	97.83	2020-06.2
Te Yin	TY0929 FFP2 NR	EN149	99.70	98.89	2020-43.1
Winner Medical Co., Ltd.	WN-N95FGIN	GB2626	99.58	99.05	2020-244.1