

# CONN-OSHA and COVID

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CONN-OSHA Occupational Safety and Health Program Manger

CRV-AIHA All Day Meeting- October 7, 2020

# Roles CONN-OSHA Has Played During Pandemic

- ▶ Subject Matter Experts
- ▶ Outreach and Education
- ▶ Consultation and Compliance

# Subject Matter Experts

- ▶ Unified Command
- ▶ ESF-7 (Emergency Support Function: Acquisition and Distribution of Resources)
- ▶ Multi ESF taskforce (Includes testing)
- ▶ State Agencies
- ▶ Private Sector Worksites
- ▶ General Public
- ▶ Re-Open CT

# COVID-Related Topics Addressed

- ▶ PPE
  - ▶ Respiratory protection
  - ▶ Gloves
  - ▶ Gowns
  - ▶ PPE
  - ▶ Face shields
- ▶ Source Control/ Cough Etiquette, Hand Hygiene
- ▶ Cleaning/Disinfecting
- ▶ Ventilation

# Respiratory Protection

Distribute limited supply of NIOSH approved N95s to high risk populations doing high risk tasks

- Need to do a Job Hazard Analysis

If supply limited:

- Use of respirators beyond the manufacturers' designated shelf-life
- Use of respirators approved under standards used in other countries that are similar to NIOSH-approved respirators
- Extended Use/ Re use

# NIOSH Approved N95 Respirators

- ▶ N95 respirators are filtering facepiece respirators that are approved by NIOSH and are given TC- approval numbers. The list of NIOSH approved N95 respirators can be found at:

[https://www.cdc.gov/niosh/npptl/topics/respirators/disp\\_part/default.html](https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/default.html)



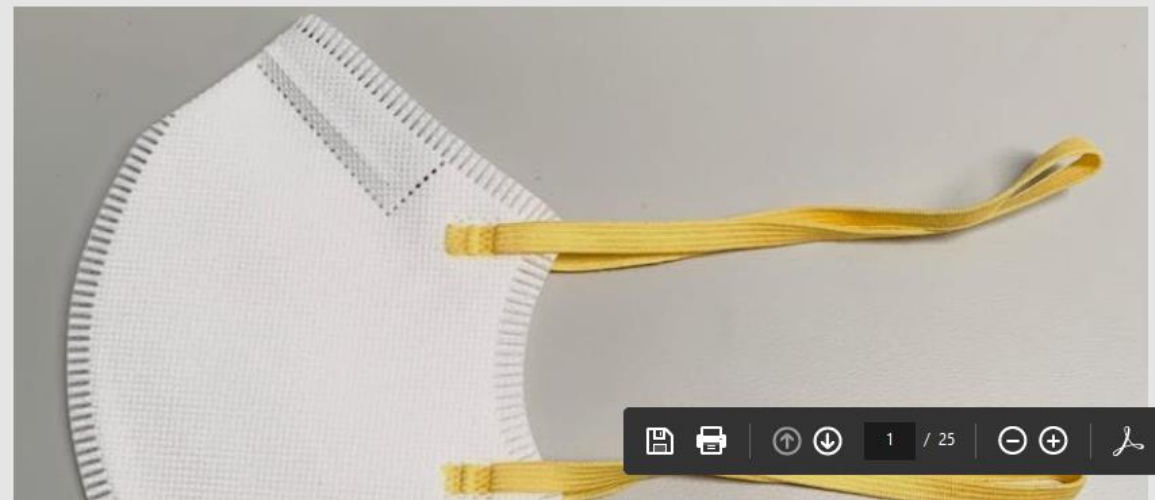
NIOSH Approved: N95

FDA Cleared for use as surgical mask



















Helps protect against certain airborne biological particles

Fluid resistant and disposable

Supplier/Manufacturer and Contact Information	Model Number/Product Line	Approval Number	Valve Yes/No	Manufacturer's Donning Procedure User Instructions
<a href="#">3M Company</a>  888-3M HELPS or <a href="#">web form</a>  ( <a href="#">Distribution Availability</a>  )	1860 (FDA) 1860S (FDA)	84A-0006	No	<a href="#">1860, 1860S [PDF - 72 KB]</a> 





Supplier/Manufacturer and Contact Information	Model Number/Product Line	Approval Number	Valve Yes/No	Manufacturer's Donning Procedure User Instructions
<a href="#">Makrite Industries, Inc.</a>  800-379-9929 617-964-1365	9500-N95VOV	84A-6954	Yes	<a href="#">9500-N95VOV</a>  [PDF - 857 KB] 
<a href="#">Makrite Industries, Inc.</a>  800-379-9929 617-964-1365	N95VOV-510W	84A-6955	Yes	<a href="#">N95VOV-510W</a>  [PDF - 5.6 MB] 
<a href="#">Makrite Industries, Inc.</a>  800-379-9929 617-964-1365	Sekura-N95	84A-7638	No	<a href="#">Sekura-N95</a>  [PDF - 109 KB] 
<a href="#">Makrite Industries, Inc.</a>  800-379-9929 617-964-1365	Sekura-N95V	84A-7643	Yes	<a href="#">Sekura-N95V</a>  [PDF - 94 KB] 
<a href="#">Makrite Industries, Inc.</a>  800-379-9929 617-964-1365	MAK520+	84A-7773	Yes	<a href="#">MAK520+</a>  [PDF - 270 KB] 
<a href="#">Makrite Industries, Inc.</a>  800-379-9929 617-964-1365	MAK368+	84A-7774	No	<a href="#">MAK368+</a>  [PDF - 270 KB] 

**Makrite 麦特瑞**

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MAKRITE HUBEI INDUSTRIAL CO., LTD

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Makrite Hubei Industrial Co., Ltd, a subsidiary of NIOSH approval holder Makrite Industries Inc., issued a notice to alert customers of a product that is potentially being manufactured without the permission of Makrite and may be misrepresented as NIOSH approved. (5/15/2020)

Makrite Sekura 321  
TC-84A-6660



# Counterfeit Respirators



These are examples of counterfeit respirators using Shanghai Dasheng Health Products Manufacture Co. Ltd's (SDH) NIOSH approval numbers without their permission. These models include, but may not be limited to, models DTC3X (marked as TC-84A-4329), DTC3W (marked as TC-84A-4335), DTC3B (marked as TC-84A-4336), DTC3Z (marked as TC-84A-8150), and Raxwell RX9501P. Note that any SDH respirators with ear loops are **NOT** NIOSH approved. (4/17/2020)



**DONAGAMEX**<sup>®</sup>

DISTRIBUTOR  
**DONG NAI GARMENT CORPORATION**

# FACE MASK N97

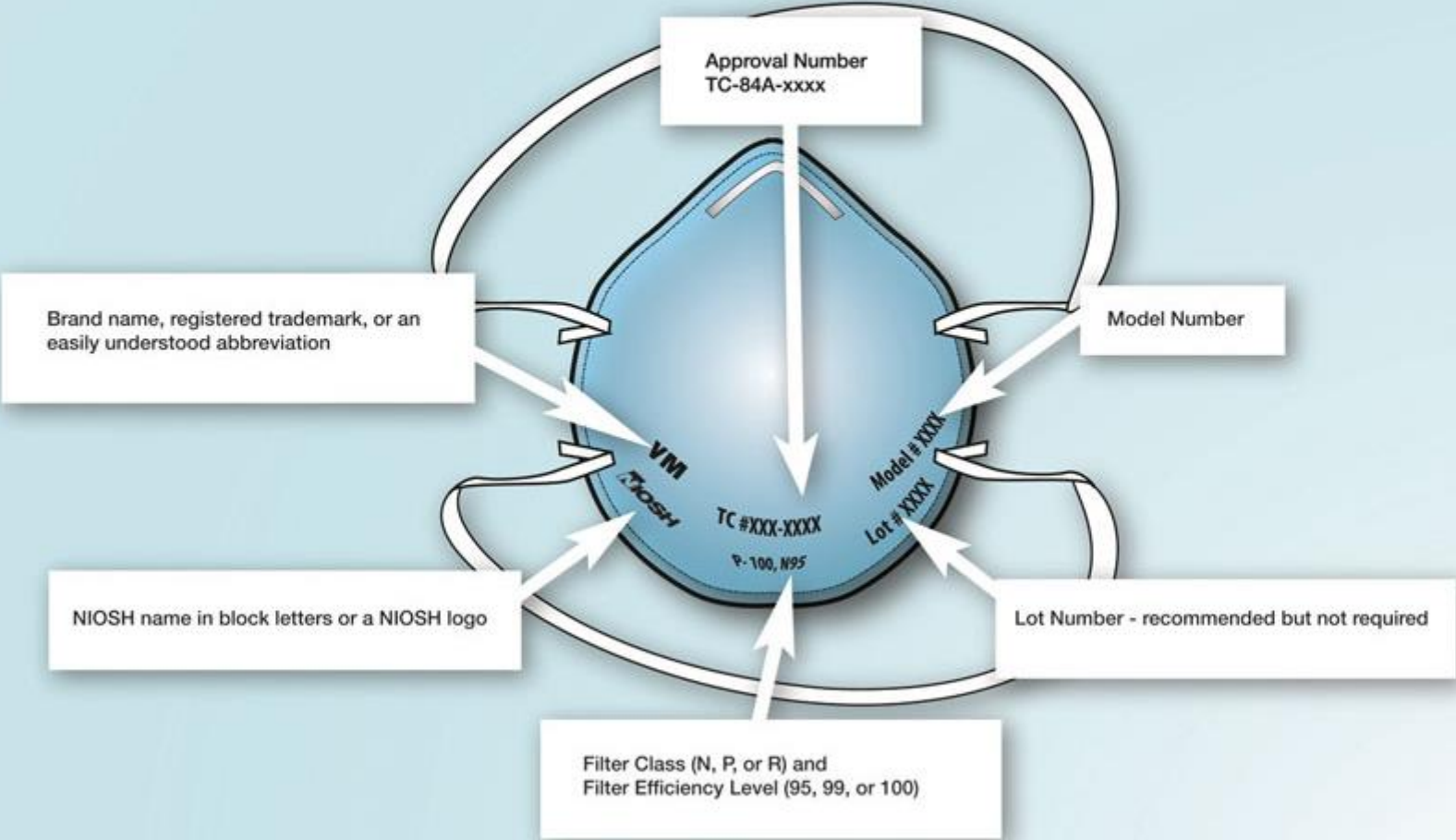


**DONG NAI GARMENT CORPORATION**

Address: Road 2 . Bien Hoa Industrial zone 1, An Binh Ward,  
Bien Hoa city, Dong Nai Province, Viet Nam

# Example of the Correct Exterior Markings on a NIOSH-Approved Filtering Facepiece Respirator

Example of Exterior Markings on a NIOSH-approved Filtering Facepiece Respirator



# Understanding the Difference



**Surgical Mask**



**N95 Respirator**

## Testing and Approval

Cleared by the U.S. Food and Drug Administration (FDA)

Evaluated, tested, and approved by NIOSH as per the requirements in 42 CFR Part 84

## Intended Use and Purpose

Fluid resistant and provides the wearer protection against large droplets, splashes, or sprays of bodily or other hazardous fluids. Protects the patient from the wearer's respiratory emissions.

Reduces wearer's exposure to particles including small particle aerosols and large droplets (**only non-oil aerosols**).

## Face Seal Fit

Loose-fitting

Tight-fitting

## Fit Testing Requirement

No

Yes

## User Seal Check Requirement

No

Yes. Required each time the respirator is donned (put on)

## Filtration

Does NOT provide the wearer with a reliable level of protection from inhaling smaller airborne particles and is not considered respiratory protection

Filters out at least 95% of airborne particles including large and small particles

## Leakage

Leakage occurs around the edge of the mask when user inhales

When properly fitted and donned, minimal leakage occurs around edges of the respirator when user inhales

## Use Limitations

Disposable. Discard after each patient encounter.

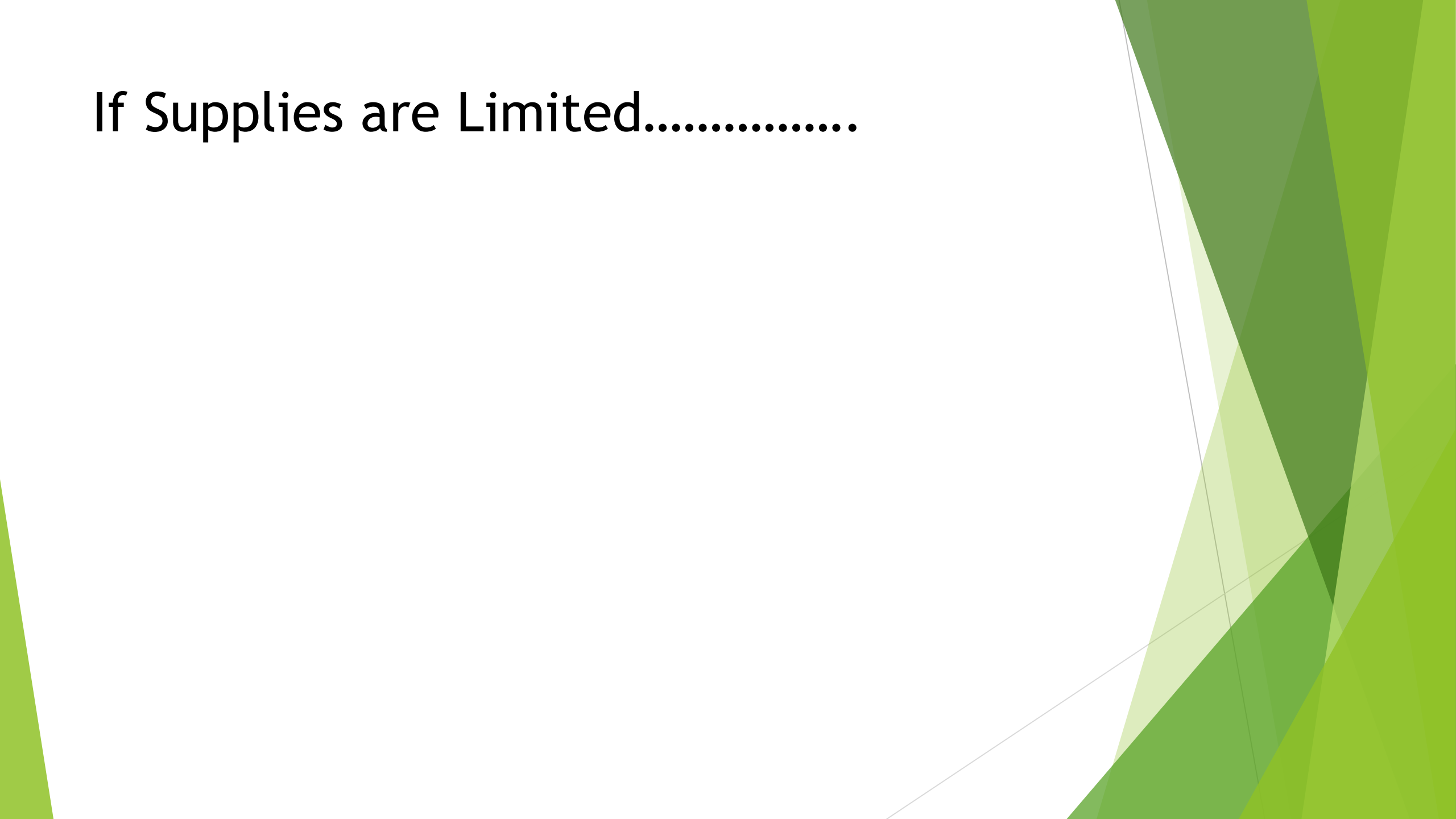
Ideally should be discarded after each patient encounter and after aerosol-generating procedures. It should also be discarded when it becomes damaged or deformed; no longer forms an effective seal to the face; becomes wet or visibly dirty; breathing becomes difficult; or if it becomes contaminated with blood, respiratory or nasal secretions, or other bodily fluids from patients.

# N95s with Exhalation Valves





If Supplies are Limited.....



## Respirators Approved Under Standards Used in Other Countries That Are Similar to NIOSH-Approved N95 Filtering Facepiece Respirators

Country	Performance Standard	Acceptable Product Classification	May Be Used in Lieu of NIOSH-Certified Products Classified as
Australia	AS/NZS 1716:2012	P2	N95
		P3	N99 or lower
Brazil	ABNT/NBR 13698:2011	PFF2	N95
		PFF3	N99 or lower
People's Republic of China	GB 2626-2006 GB 2626-2019	KN/KP95	N95
	GB19083-2010	KN/KP100	N95
Europe	EN 149-2001	P2	N95
		P3	N99 or lower

# Concern with KN95s



- ▶ Although the testing procedures for the masks' filter efficiency are similar, the CDC has some quality control concerns. In addition, the CDC notes that many KN95s have an ear loop design. NIOSH-approved N95s typically have head bands. The limited assessment of ear loop designs indicates difficulty achieving a proper fit, a key element for effective respiratory protection.
- ▶ Don't use for aerosol generating procedures unless alternative is a loose-fitting cloth mask

# Extended Use/ Re-use

- ▶ Surgical mask coverings
- ▶ Passive decontamination
- ▶ UV
- ▶ Hydrogen Peroxide



Best practice is to use new N95s. Decontamination does not solve the PPE shortage crisis, and is an emergency practice to be considered during the COVID-19 pandemic. Efficacy and safety of N95 decontamination has not been fully characterized.

## COVID N95 DECON & REUSE



**HYDROGEN PEROXIDE  
VAPOR  
&  
HYDROGEN PEROXIDE  
GAS PLASMA**

### CORONAVIRUS INACTIVATION

*Data not available for COVID-19 on N95s*

- + Hydrogen peroxide inactivates viruses and highly-resistant bacterial spores<sup>1,2</sup>

### N95 MASK INTEGRITY

- + HPV for up to 20 cycles does not degrade filter quality, straps, or fit for 3M 1860 N95s<sup>3,4</sup>
- + Low dose HPGP for 2 cycles does not degrade fit for 3M 8822 N95s<sup>5</sup>
- High dose HPGP reduces filtration of 3M 1860 & KC PFR95 N95s<sup>6</sup>

### KEY CONSIDERATIONS

- Data from specific N95 models may not apply to other models
- Trained personnel required - HPV and HPGP systems are dangerous
- N95s should be isolated and returned to original user
- N95 user seal check should be performed before each reuse
- Correct machine settings must be confirmed

### RISKS

- Insufficient off-gas time and residue may pose a respiratory and skin hazard
- Some HPGP protocols reduce filtration efficiency
- Insufficient dosing may lead to insufficient decontamination
- Hydrogen peroxide is flammable and presents an explosion risk

### IMPLEMENTATION

*Note: "HPV" and "HPV" are sometimes used interchangeably but can also refer to different techniques.*

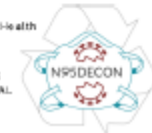
- + CDC released guidance on HPV for decontaminating N95s<sup>7</sup>
- + HPV systems have recently received FDA authorization<sup>8</sup>
- + Processing procedures for HPV have been developed<sup>9</sup>
- + HPGP systems are under review by the FDA<sup>10</sup>
- Systems and processes are complex and dangerous and require trained personnel

### CONCLUSION

If implemented properly, and N95s are not soiled, it is likely that both HPV and HPGP machine-standard protocols inactivate SARS-CoV-2 and bacterial spores. HPGP and HPV are distinct processes; decontamination durations and maximum recommended reuse cycle recommendations are extremely different.

**SUPPORTING RESEARCH** [1] Heckert et al., 1992; [2] Battelle, 2016; [3] Schwanz, 2020; [4] Dutch National Institute for Public Health and the Environment, 2020; [5] Bergman, 2010; [6] CDC, 2020; [7] Battelle, 2020; [8] Personal Communication, J. Varnood, ASP

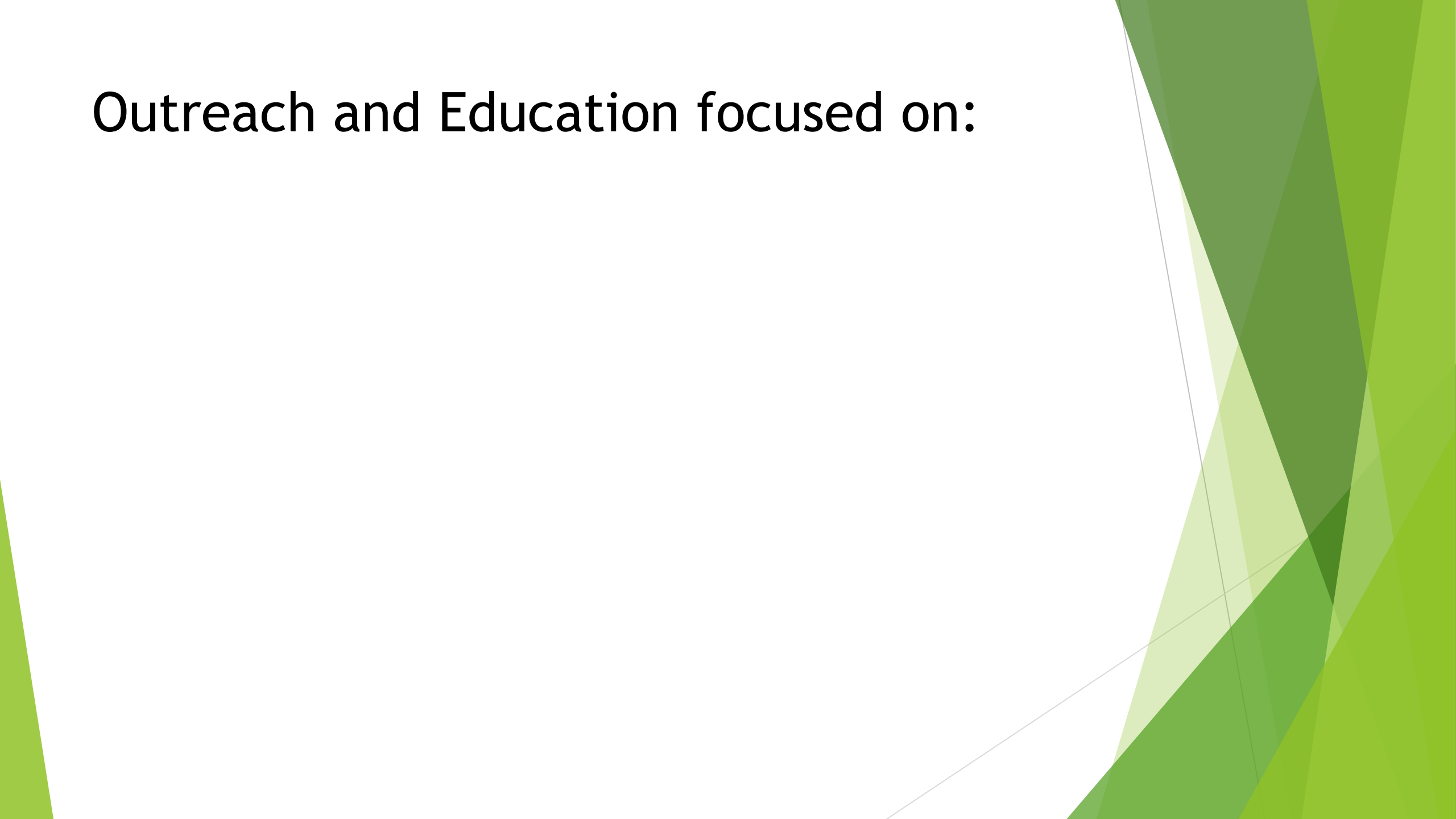
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v1.1 (April 1, 2020)

[www.n95decon.org](http://www.n95decon.org)

Outreach and Education focused on:



# Comprehensive Respiratory Protection Programs

- ▶ Written Program
- ▶ Medical Clearance
- ▶ Fit tests
- ▶ Training





## **N95 Respirators-Training Materials and Resources**

### **N95 Respirators - Use and Fit Testing Powerpoint Presentation**

- [N95 Respirators- Use and Fit Testing Train the Trainer Powerpoint](#)

### **Sample Written Respirator Program for N95 Respirators**

- [Sample Written Respiratory Protection Program for N95 Respirators](#)

### **Fit Test and Training Resources**

- [N95 Qualitative Fit Test Procedure](#)
- [Sample Fit Test and Training Record](#)
- [N95 Respirator Training Notes](#)
- [CDC Recommended Guidance for Extended Use and Limited Reuse of N95 Filtering Facepiece Respirators in Healthcare Settings](#)

### **Medical Clearance Resources**

- [OSHA Respirator Medical Evaluation Questionnaire](#)
- [Sample N95 Medical Clearance Form](#)

### **OSHA's Respiratory Protection Standard**

- [OSHA's Respiratory Protection Health and Safety Topics web page](#)
- [1910.134 Respiratory Protection](#)
- [Appendix A Fit Testing Procedure](#)
- [Appendix B1 User Seal Check Procedure](#)
- [Appendix B2 Respirator Cleaning Procedures](#)
- [Appendix C Medical Evaluation Questionnaire](#)
- [Appendix D Information for Employees Using Respirators When Not Required](#)

### **Written Respiratory Protection Program Resources would include:**

- [Sample Written Respiratory Protection Program for N95 respirators](#)
- [Worksheet for developing a Written Respirator Program](#)

# High Risk Industries:

COVID-19 - Control and Prevention / Dentistry Workers and Employers

COVID-19 Control and Prevention

## Dentistry Workers and Employers

This guidance is not a standard or regulation, and it creates no new legal obligations. It contains recommendations as well as descriptions of mandatory safety and health standards. The recommendations are advisory in nature, informational in content, and are intended to assist employers in providing a safe and healthful workplace. The Occupational Safety and Health Act requires employers to comply with safety and health standards and regulations promulgated by OSHA or by a state with an OSHA-approved state plan. In addition, the Act's General Duty Clause, Section 5(a)(1), requires employers to provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm.

This section provides guidance for dentistry workers and employers. This guidance supplements the general interim guidance for workers and employers of workers at increased risk of occupational exposure to SARS-CoV-2.

On March 16, 2020, the American Dental Association called for dentists to keep their offices closed to all but urgent and emergency procedures during the COVID-19 outbreak. Unless emergency dental procedures absolutely cannot be delayed, OSHA further recommends that emergency dental procedures be performed on patients with suspected or confirmed COVID-19 only if appropriate precautions, including personal protective equipment (PPE), are available and used.

Employers should remain alert of changing outbreak conditions, including as they relate to community spread of the virus and testing availability, and implement infection prevention measures accordingly. As states or regions satisfy the gating criteria to progress through the phases of the guidelines for Opening up America Again, employers will likely be able to adapt this guidance to better suit evolving risk levels and necessary control measures in their workplaces.

Employers should assess the hazards to which their workers may be exposed; evaluate the risk of exposure; and select, implement, and ensure workers use controls to prevent exposure. The table below describes dentistry work tasks associated with the exposure risk levels in OSHA's occupational exposure risk pyramid, which may serve as a guide to employers in this sector.



### Dentistry work tasks associated with exposure risk levels

Lower (caution)	Medium	High	Very High
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# Cleaning, Sanitizing and Disinfecting Surfaces

- ▶ Hazard Communication
- ▶ Personal Protective Equipment

## CLEANING FOR COVID-19

COVID-19 (novel coronavirus 2019) is a respiratory illness that primarily spreads through the air and through personal contact with surfaces and infected people. COVID-19 is an enveloped virus, meaning it is easily compromised by proper cleaning and sanitizing. It is unknown how long COVID-19 can survive on surfaces, but it is recommended to clean and sanitize high contact surfaces at home, school, and the work place.



Remove visible soil and dirt from surfaces using soap and water.




Apply an EPA registered disinfectant to kill pathogens, including COVID-19. Common cleaners include:

- Clorox Disinfecting Wipes
- Lysol Brand Bleach Multi-Purpose Cleaner
- Purell Multi Surface Disinfectant



For effective sanitizing, wait the proper contact time as indicated on the product label.



**CLEAN  
SANITIZE  
WAIT**

# REOPEN Connecticut

SAFER. STRONGER. TOGETHER.



**Governor Ned Lamont**  
 Sector Rules for June 17th reopen  
 September 23, 2020



## RESTAURANTS

### RESTAURANTS



#### THOROUGH CLEANING

Complete a thorough cleaning of facility prior to reopening, including, but not limited to all dining, kitchen, bathroom, and seating areas, and any commonly touched surfaces.



#### LOG EMPLOYEES

Maintain a log of employees on-premise over time, to support contact tracing.



#### CERTIFICATION

Complete the self-certification on the DECD website to receive a Reopen CT badge. Once complete, businesses can choose to post the badge on-site and on social media to advertise adherence to CT rules and build customer confidence.



#### CAPACITY TRACKING

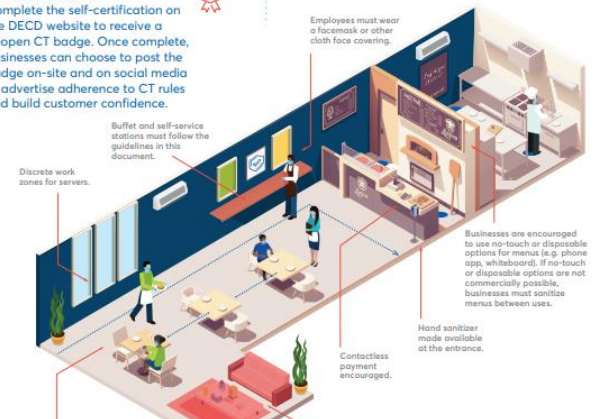
Employers are responsible for enforcing revised capacity limits (50%).



#### SHIFTS

Stagger shift start/stop times and break times to minimize contact across employees.

- Consider cohorting staff within each shift (e.g. keeping the same shift schedules and avoiding mixing staff across shifts)



# Consultation and Compliance

April 6

- ▶ Consultants conduct “virtual visits”
- ▶ Compliance officers conduct on-site and “virtual visits”

June 1

- ▶ Field work resumes

# CSHO Safety and Client Safety

## Remote/ Virtual work

Opening/closing conference via phone or at picnic table

Live stream walkthroughs

## On site

Social distancing and cloth face coverings (review expectations with employer)

N95s- medical clearance, fit tests

Gloves, goggles, gowns, face shields, hand sanitizer, face masks

Handwashing before and after visit

Sanitation of sampling equipment

# CONN-OSHA Compliance (Public Sector)

- ▶ Deaths (presumed work-related COVID)
- ▶ Formal Complaints
  - ▶ Respiratory protection
  - ▶ PPE
  - ▶ Hazard Communication
- ▶ Whistleblower

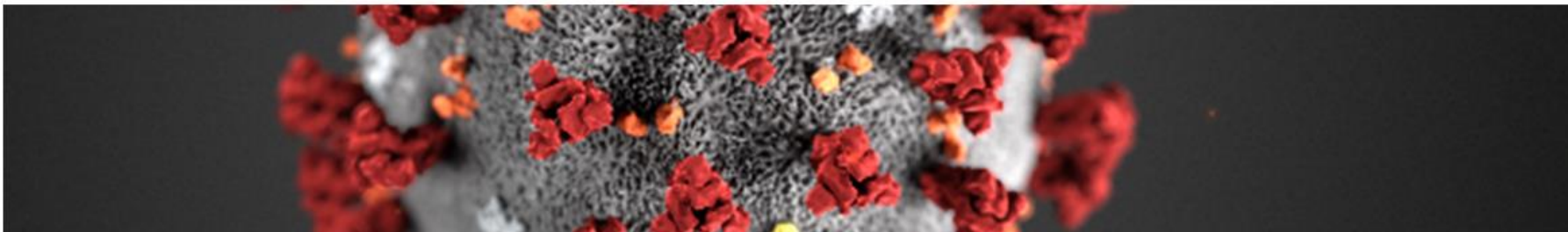
Triage with Departments of Public Health, Education and Public Safety on issues concerning source control, social distancing, hand washing and ventilation (211 etc)



Q SEARCH OSHA

Safety and Health Topics / COVID-19

## COVID-19



### Overview



This webpage provides information for workers and employers about the evolving coronavirus pandemic. The information includes links to interim guidance and other resources for preventing exposures to, and infection with, the novel coronavirus—officially named SARS-CoV-2—that causes the Coronavirus Disease 2019 (COVID-19).

More »

### News and Updates



Find the latest OSHA resources related to COVID-19, including:

- The Use of Cloth Face Coverings while Working in Hot and Humid Conditions (Indoors) (Outdoors). (September 2020).
- Steps to Reducing Worker Exposure to COVID-19 in Fish and Seafood Processing and Packaging Facilities (Spanish). (August 28, 2020)

### Highlights

- Guidance on:
  - [Returning to Work \(Spanish\)](#)
  - [Preparing Workplaces for COVID-19 \(Spanish\)](#)
  - [Workers in Shared Housing](#)
  - [The Use of Cloth Face Coverings while Working in Hot and Humid Conditions \(Indoors\) \(Outdoors\)](#). (September 2020).
- [Guidance for specific industries](#)
- [Employee Health and Food Safety Checklist for Human and Animal Food Operations During the COVID-19 Pandemic](#)
- [Worker Exposure Risk to COVID-19 \(Spanish\)](#)
- [Frequently Asked Questions \(FAQs\)](#)
- [Understanding Compliance with OSHA's Respiratory Protection Standard During the Coronavirus Disease 2019 \(COVID-19\) Pandemic](#)
- [Preparing Solutions for Qualitative Fit Testing from Available Chemicals](#)

# CONN-OSHA Consultation (Public and Private Sectors)

Follow-up on Federal and Connecticut OSHA Complaints and Citations

Continue to protect public and private sector workers from recognized hazards.

Essential workers deserve safe and healthy workplaces