RESPIRATORY PROTECTION PROGRAM TOOLKIT

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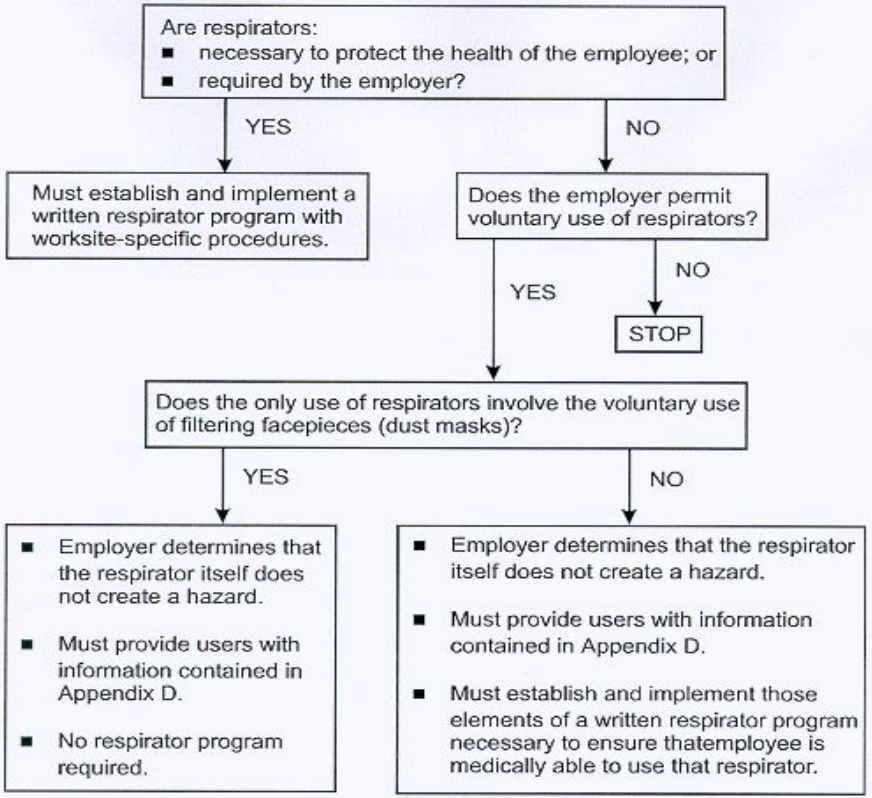
What is a Respiratory Protection Program (RPP) and why do we need it?

Respirator-Use Requirements Flow Chart
29 CFR 1910.134(c)



Flowchart: OSHA

RESPIRATORY PROTECTION PROGRAM GOALS

A Respiratory Protection Program is critical in settings with identifiable respiratory hazards. Some of the benefits of establishing the RPP include:

- Hazard identification and implementation of control measures.
- Understanding the need for respirator use.
- Understanding the use of appropriate respirator type for the identified hazards.
- Understanding of the legally enforceable respiratory protection standards.

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.

This information provides clarification regarding respirator and mask use in workplaces in which employees are exposed to respiratory hazards, it is not specific for the COVID-19 pandemic.

CDC NIOSH
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

Infographic: CDC

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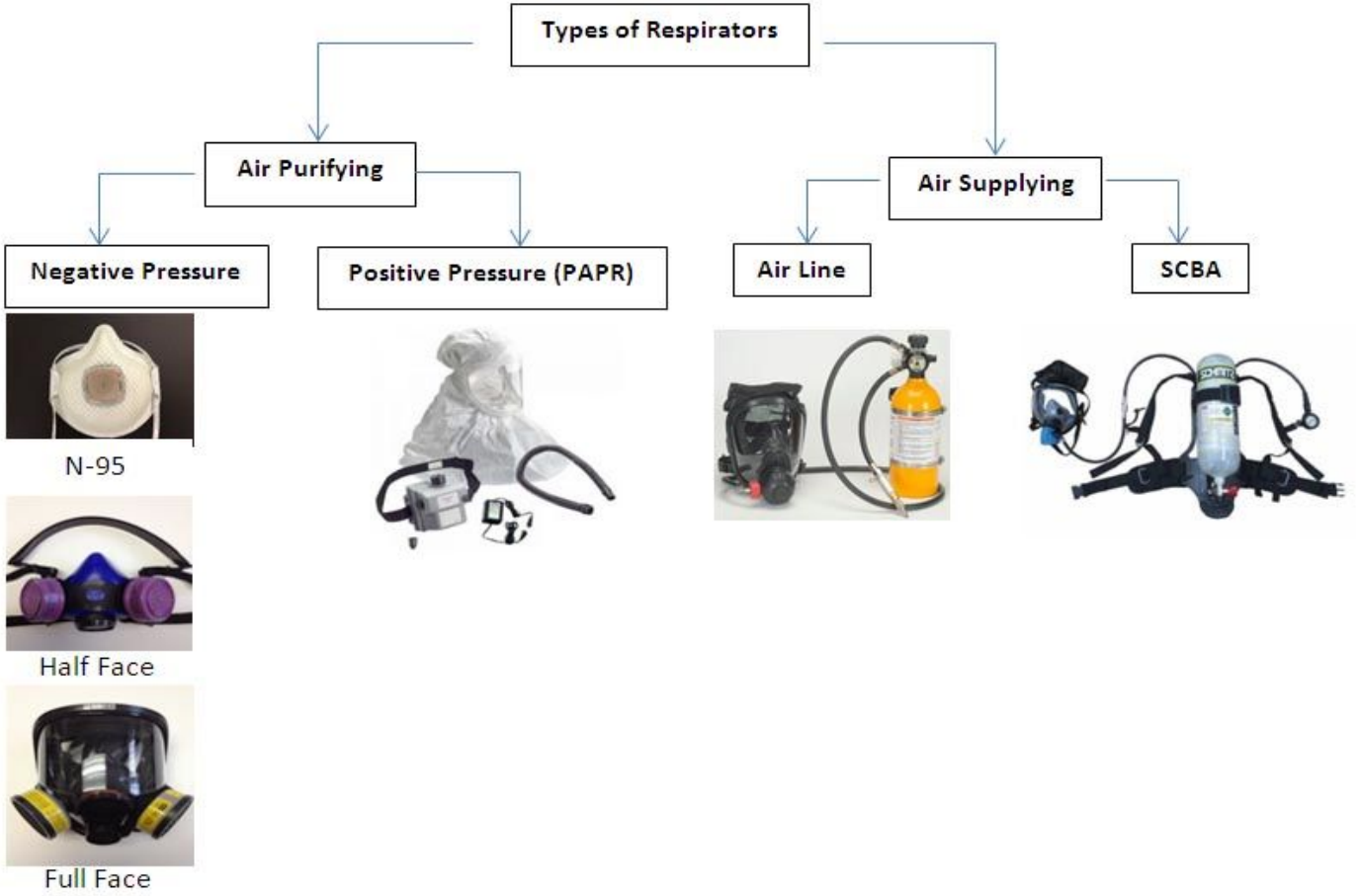


Flowchart:
UMass Amherst

RESPIRATORY PROTECTION PROGRAM SET UP

For the development of a successful RPP:

- Roles and responsibilities for program administration and implementation must be determined and assigned appropriately.
- A hazard assessment must be conducted and results included in the RPP.
- Employees at risk of exposure to hazards present in the workplace must be identified.

RESPIRATORY PROTECTION PROGRAM COMPONENTS

An OSHA compliant respiratory protection program includes the following essential components listed on the Occupational Safety and Health Standards 29 CFR 1910.134:

1. Nine OSHA provisions.

2. Written program/living document.

3. Administered by a trained program administrator.

RPP COMPONENTS

OSHA Provision #1:

Respirator selection

- Match to nature of hazard.
- Work conditions and job requirements.
- Functionality and limitations of available respirators.
- NIOSH approved respirators.

NIOSH Approved Respirators

Types of N95 respirators

Image:
Vitality Medical

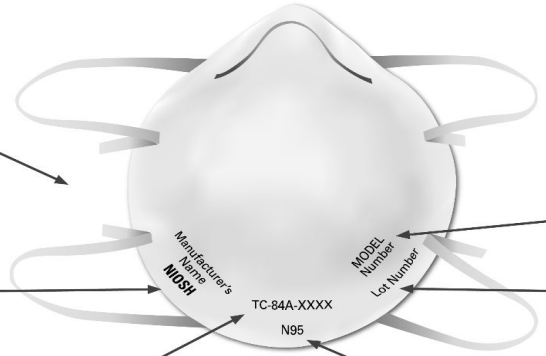
Required Labeling of NIOSH-Approved N95 Filtering Facepiece Respirators

For more information about NIOSH-Approved respirators, go to: **http://knowits.NIOSH.gov**

Example of Exterior Markings — Approval holder business name, a registered trademark or an easily understood abbreviation.

If privately labeled, the private label name or logo will appear instead of the approval holder business name.

NIOSH — NIOSH name in block letters or NIOSH logo.



Exterior View

Model # XXXX — Model Number or Part Number

Lot # XXXX — Lot Number and Date of Manufacture (recommended, but not required)

TC-Approval Number (TC-84A-XXXX) — For products manufactured after September 2008, the TC-Approval number is required to appear on the product.

Filter Designation — NIOSH filter series. Alpha-numerical rating followed by filter efficiency level (example, N95, N99, N100, R95, P95, P99, P100)

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

Graphic: CDC

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RPP COMPONENTS

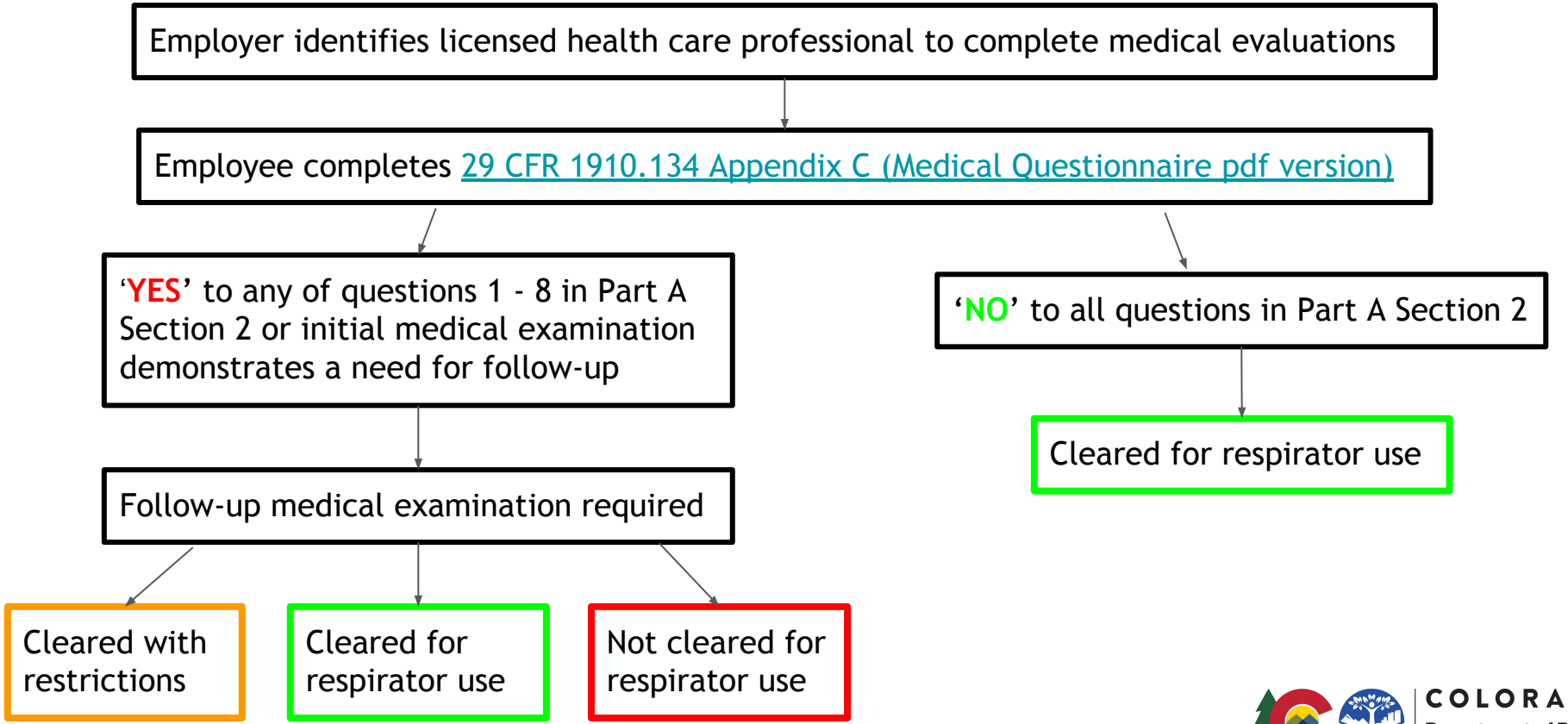
OSHA Provision #2:

Medical evaluation

- For all required to wear a respirator.
- Performed by licensed health care professional.
- Completed before every fit testing.

29 CFR 1910.134 Appendix C: Medical Questionnaire

MEDICAL EVALUATION PROCESS



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RPP COMPONENTS

OSHA Provision #3:

Fit testing

- Must be done before initial respirator use and annually.
- For each different type of respirator to be used.
- Retest as needed when changing respirator types available and when physical changes that affect user fit occur.
- Qualitative or quantitative.

29 CFR 1910.134 Appendix A: Fit Testing Protocols

OSHA Respiratory Protection Training Videos

Fit Testing

QUALITATIVE
Subjective.
Four approved protocols.
Most common - Saccharin or Bitrex.
Used for APR respirators.

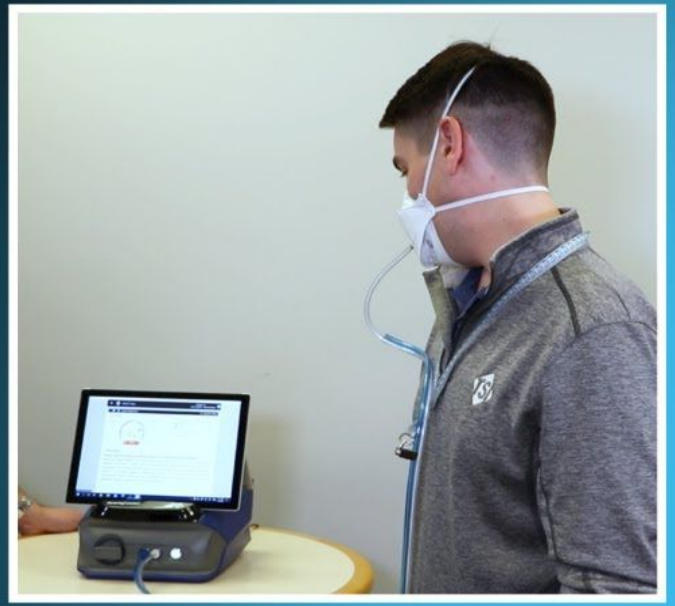
QUANTITATIVE
Objective.
Three approved protocols.
Most common - ambient aerosol condensation nuclei counter test (CNC).
Can be used for all types of respirators.

Qualitative:
FT-30 Bitter

Quantitative:
PortaCount 8048 Kit

Image:3M; TSI

QUANTITATIVE

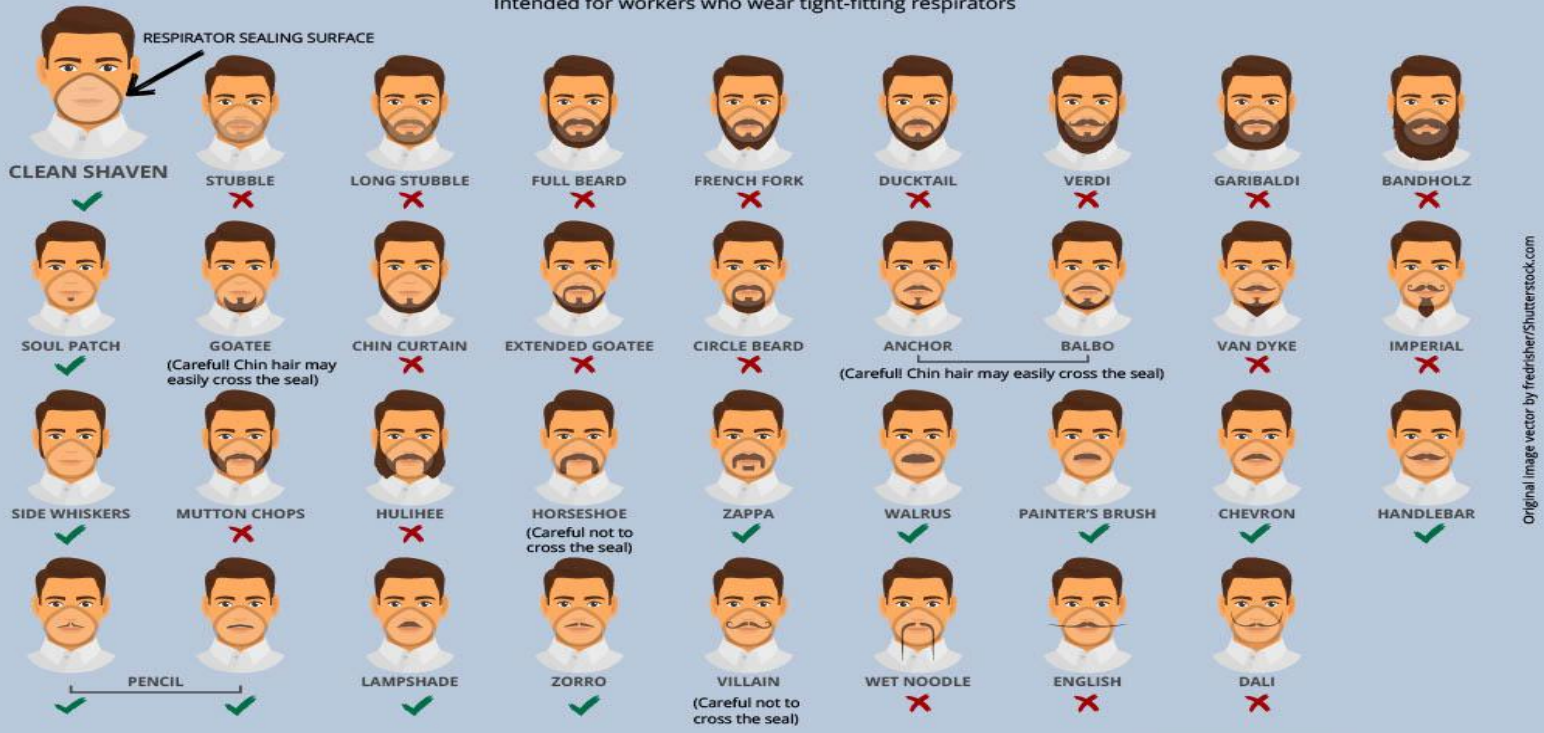


QUALITATIVE

Image: Youtube: TSI Incorporated

Facial Hairstyles and Filtering Facepiece Respirators

Intended for workers who wear tight-fitting respirators



*If your respirator has an exhalation valve, some of these styles may interfere with the valve working properly if the facial hair comes in contact with it.
*This graphic may not include all types of facial hairstyles. For any style, hair should not cross under the respirator sealing surface.
Source: OSHA Respiratory Protection Standard
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=12716
Further Reading: NIOSH Respirator Trusted-Source Webpage
https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/respsource3ffitest.html

Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

2017

Image: CDC

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RPP COMPONENTS

OSHA Provision #4:
Procedures for appropriate day-to-day use vs. emergency use.

OSHA Provision #5:
Maintenance procedures: cleaning, disinfecting, storing, inspecting, repairing, and discarding.

*OSHA Provision #6:
Suitability procedures: adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators (SCBA).
*if applicable.

RPP COMPONENTS

OSHA Provision #7:
Respiratory hazards and exposure training.

OSHA Provision #8:
Appropriate use procedures: proper use, donning, doffing, and respirator limitations.

OSHA Provision #9:
Program effectiveness evaluation protocols.

RPP COMPONENTS

Written Program

Written program guidelines:

- A living document with site specific policies and procedures that is updated as needed.
- Accessible to all employees.
- Available to OSHA representatives on request.

RPP COMPONENTS

Program Administration

Program administration guidelines:

- OSHA training on respiratory protection standards.
- Knowledge of the principles of respiratory protection.
- Authority to implement program.

RESOURCES

CDPHE

CDPHE Respiratory Protection Program Toolkit

CDC

CDC/NIOSH/OSHA Hospital Respiratory Protection Program Toolkit Webpage

Hospital Protection Program Toolkit PDF (2022)

CDC: Donning and doffing PPE sequence

CDC Infographics

CDC: Guide to infection prevention for outpatient settings (2016)

OSHA

OSHA Respiratory Protection Standard Requirements pdf

OSHA Respiratory Protection Program Guidelines

OSHA Archive: Extended use/reuse of respirators during COVID-19 pandemic (2020)

RESOURCES

NIOSH

NIOSH: Reuse/extended use FAQ (2018)

NIOSH: Fit testing FAQ (2018)

NIOSH: Seal check FAQ (2018)

NIOSH: Healthcare respiratory protection resources

NIOSH: Respiratory protection information source (2022)

APIC

2009 APIC position paper: Extended use/reuse of respirators during disasters

APIC archive doc (n.d.): Respirator reuse in ARD emergencies

APIC: Infection prevention for ambulatory care centers during disasters (2013)

APIC DOs & DONTs for respirator use (2015)

APIC: Safely reprocessing respirators for reuse during epidemics (2022)

REFERENCES

CDPHE Respiratory Protection Program Toolkit

CDPHE. (n.d.). *Respiratory protection program toolkit*. https://drive.google.com/file/d/1Opw4y2lIX1WL3O4joXyG0n1PAQhdiogE/view

CDC/NIOSH/OSHA Hospital Respiratory Protection Program Toolkit

CDC. (April, 2022). *Hospital respiratory protection program toolkit*. https://www.cdc.gov/niosh/docs/2015-117/pdfs/2015-117revised042022.pdf?id=10.26616/NIOSHPUB2015117

Q & A

Thank you!

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