Use and Limitation of N-95 Filtering Facepiece

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When is the Use of N-95 Appropriate?

- The N-95 filtering facepiece can be used for respiratory protection against particulates.

- Particulates can be found in many environments at UCSD. Examples of such areas would be animal care facilities, lab settings, and wood or metal working shops.
California Code of Regulations, Title 8, Section 5144

Cal/OSHA's Respiratory Protection Regulation

- **Medical screening** to determine if the employee is physically able to wear a respirator
- **Annual fit-test** to determine if the respirator fits properly on the employee's face
- **Annual training** on the selection, use, storage, and limitations of the respirator
Regulatory Requirements for N-95 Volunteer Use

- For nuisance particulates (inert, non-infectious, large diameter size)
- Employee must be informed on the use and limitation of N-95 filtering facepieces
- Employee must read and be familiar with Appendix D, CCR, Title 8, Section 5144
Regulatory Requirements for N-95 Mandatory Use

- Employer requests a respiratory risk assessment of the tasks to justify mandatory N-95 use
- Employee must be medically approved to wear N-95
- Employee must be fit-tested annually
- Employee must be trained on the use and limitation
When Should You Wear a N-95 Filtering Facepiece?

- When working in areas that are dusty or dust particles are produced from the process

- But not to be worn when working with oil aerosols, gases, vapors, asbestos, sandblasting, or highly infectious agent
What Does N-95 Mean?

- The "N" stands for respirator filters that can be used when no oil is present in the contaminants.
- The "95" means that the product has been tested and certified by NIOSH* to have a filter efficiency level of 95% or greater against particulate aerosols.

*National Institute of Occupational Safety and Health
Donning of N-95 Filtering Facepiece

Step 1
Slightly stretch the two straps and cup the facepiece in your hand with the nosepiece at finger tips, allowing the headbands to hang freely below hands.
Donning of N-95 Filtering Facepiece

Step 2
Position the facepiece under your chin with the nosepiece up.
Donning of N-95 Filtering Facepiece

Step 3
Pull the top strap over your head so it rests high on the back of the head.
Donning of N-95 Filtering Facepiece

Step 4

Pull the bottom strap over your head and position it around neck below ears.
Donning of N-95 Filtering Facepiece

Step 5
Using two hands, mold the nosepiece to the shape of your nose by pushing inward while moving fingertips down both sides of the nosepiece. Pinching the nosepiece using one hand may result in less effective performance.
Seal Check, Not a Fit Test

**Facepiece Seal Check**
Perform seal should be checked before each use. To check fit, place both hands completely over the facepiece and exhale. If air leaks around your nose, adjust the nosepiece as described in step 5. If air leaks at the edges, adjust the straps back along the sides of your head. Recheck.
Fit-Test Requirement

- Fit-test shall be completed when employee is using the N-95 filtering facepiece where respiratory protection is mandatory, not on a voluntary status.

- Fit-test Methods
  - Qualitative, subjective (saccharin/Bitrex)
  - Quantitative, objective (PortaCount)
Facepiece Effectiveness

The N-95 filtering facepiece is only effective when the seal around your nose and mouth is tight. If you cannot achieve proper fit, do not enter the contaminated or high dusty area. Consult your supervisor.

The N-95 filtering facepiece cannot be worn by employees with facial hair that comes between the sealing surface of the mask and face. Bearded employee may contact Environment, Health and Safety to obtain information on alternative respiratory protection, such as powered air-purifying respirators (PAPR).
Removal of N-95 Filtering Facepiece

Step 1
Cup the facepiece in your hand to maintain position on face. Pull bottom strap over head.
Removal of N-95 Filtering Facepiece

Step 2
Still holding the respirator in position, pull top strap over head.
Removal of N-95 Filtering Facepiece

Step 3
Remove the facepiece and discard.
What are the limitations of N-95?

- It has the ability to filter particles 1 micrometer with a filter efficiency of >95%.
- If this facepiece becomes wet, it is no longer effective and must be replaced.
- The N-95 is not intended for protection from organic vapors, toxic gases, or toxic particulates.
- It cannot be used in environment with unknown contaminant and/or highly infectious or toxic agent.
Use and Limitation of N-95

- Cannot be worn in an atmosphere containing less than 19.5% Oxygen.
- Cannot be used in concentrations of contaminants that are Immediately Dangerous to Life and Health.
- Cannot be used with beards or other facial hair or other conditions that prevent a good seal between the face and the edge of the respirator.
- Consult your supervisor or Environment, Health and Safety if you have questions regarding respiratory protection.
Use and Storage

- If the facepiece becomes damaged, soiled, or breathing becomes difficult, leave the contaminated area and dispose of it.
- If you are re-using the facepiece for intermittent duration, store it in a sealed plastic bag between each use.
- Do not leave it hanging by the straps, out in the open for dust to settle inside the mask.
- Avoid leaving the container open when removing the facepiece from the original package.
Questions?

- UCSD, EHS, Occupational Health and Hygiene
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