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1.0 Introduction

1.1 Policy

It is the policy of the University of Nevada, Reno (UNR) to provide faculty, staff, students and visitors with a safe and healthy learning, research, and work environment. The UNR Environmental Health & Safety Department will provide guidance on the selection, use, care, and maintenance of respiratory protective equipment and develop procedures for their safe use.

All activities involving the use of respiratory protective equipment including but not

emergency response situations such as clean-up of some hazardous materials spills. Respiratory protective equipment may also be required for work in confined spaces or for short-term projects where engineering controls are not practical.

2.0 Responsibility

Each department that requires, is required to use, or has voluntary use of respirators, is responsible for implementing the respiratory protection program. Each department is responsible for scheduling department employees for annual fit-testing and medical evaluation as needed.

2.1 Supervisors, Managers, and Principal Researchers

Each ~~person in charge of a research project or in charge~~ ~~(b) (6) (c) (7) (e) (9) (10) (11) (12)~~

2.1.6

Obtaining assistance of the Environmental Health & Safety Department in selecting appropriate respiratory protection devices before they are purchased.

2.1.7

Enforcing the use of respiratory protective equipment when required by regulations or other requirements, as outlined in the standard operating procedures of this program.

2.2 Employees

Employees are responsible for:

2.2.1

Utilizing issued respiratory protection in accordance with instructions and training provided by EH&S and in accordance with the standard operating procedures of this program.

2.2.2

Notifying supervisors and/or EH&S of any voluntary use of respiratory protection.

2.2.3

Completing the Medical Questionnaire accurately and submitting it to an approved on-line evaluation physician service or to a qualified physician or other licensed health care professional (PLHCP).

2.2.4

Attending training and receiving fit-testing on an annual basis.

2.2.5

Informing supervisor of any personal health problems that may arise which could be aggravated by the use of respiratory protective equipment.

2.2.6

Preventing damage to respirators insuring that respirators are not modified or altered in any way

2.2.7

3. Significant dental changes, i.e., multiple extractions without prosthesis, or dentures.
4. Reconstructive or cosmetic surgery.

3.3.3

Individuals who have a known health problem that could be aggravated by the use of respiratory protective equipment.

3.3.4

Individuals who the designated medical professional has determined require a medical examination for any reason before assignment to activities requiring the use of respiratory protective equipment.

4.0 Education and Training

The Environmental Health & Safety Department shall provide instruction on:

4.0.1

Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator.

4.0.2

What the limitations and capabilities of the respirator are.

4.0.3

How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions.

4.0.4

How to inspect, put on and remove the respirator.

4.0.5

How to perform seal checks of the respirator

4.0.6

4.0.7

How to recognize medical signs and symptoms that may limit or prevent the effective

5.2.1 Do not wear a respirator if you have:

5.2.1.a.

Not completed the Medical Questionnaire and obtained written medical clearance from the designated physician.

5.2.1.b.

Not been trained by an Environmental Health & Safety Representative in the use of the respirator.

5.2.1.c.

Not successfully completed initial fit testing.

5.2.1.d.

Gone more than 12 months since your last fit test.

5.2.1.e.

Immediately replace any worn or damaged components with MSHA/NIOSH or NIOSH approved components or remove the respirator from service. See the MAINTENANCE section for proper directions for inspecting, cleaning, and storing your respirator.

5.3 Respirator User Seal Checks

For all tight-fitting respirators, the user shall perform user seal checks according to the following directions:

5.3.1 Negative Pressure User Seal Check

This test must be performed before each use and should be performed periodically during use.

This test is performed by closing off the inlets of the canister, cartridges or filters by covering with the palms of the hands, by placing seals over the canister or cartridge inlets, or by squeezing breathing tubes so that air cannot pass. Inhale gently so the face piece collapses slightly and hold breath for ten seconds. If the face piece remains slightly collapsed and inward leakage is not detected, the respirator is assumed tight and the exhalation valve and face piece are not leaking.

5.3.2 Positive Pressure User Seal Check

This test must be performed before each use and should be performed periodically during use.

This test is performed by closing off the exhalation valve and exhaling gently into the face piece. The fit is considered satisfactory if a slight positive pressure can be built up inside the face piece without any evidence of outward leakage. For some respirators, the exhalation valve cover must be removed. Carefully replace it after the test.

6.0 Respiratory Equipment

This section contains operating instructions and limitations for respiratory equipment that may be used at GBC. The following use limitations apply to all use of respiratory protective devices used at GBC:

6.0.1.

Facial hair that interferes with face to mask fit shall not be permitted.

6.0.2.

The Medical Questionnaire must be completed.

6.0.3.

Written medical clearance from a designated physician must be obtained.

6.0.4

Training and fit testing must be successfully completed prior to use and annually thereafter.

6.0.5

If an employee exhibits/experiences difficulty in breathing (that is unrelated to respirator function) during testing or use, he/she shall be referred to a physician to determine fitness to use such equipment while performing assigned duties.

Not everyone can wear respirators. Individual with impaired lung function, due to asthma or emphysema for example, may be physically unable to wear a respirator. Individuals who cannot get a good facepiece fit, including those individuals whose beards or sideburns interfere with the facepiece seal, will be unable to wear tight fitting respirators.

Respirators may also present communication problems, vision problems, fatigue and reduced work efficiency. Nonetheless, it is sometimes necessary to use respiratory protection as the means of control.

6.1 Filtering Face-pieces (N95 respirators)

6.1.1. Availability and types for use.

N95 respirators of various kinds, including disposable types, may be used for protection against low concentrations of certain nuisance dusts (such as dust generated while sweeping floors or sanding wood). Only the N95 respirators which incorporate a surgical mask are designed to be fluid resistant to splash and spatter of blood and other infectious materials.

6.1.2. Limitations.

N95 respirators provide no protection against gases, vapors or toxic contaminants. They will not protect the user in atmospheres containing oil aerosols. Since they supply no oxygen, they cannot be used in oxygen deficient atmospheres. These masks must not be used for work involving hazardous particulates such as asbestos.

6.1.3. Procedure.

When a N95 respirator is required for a job situation, the user should:

6.1.3.a.

Put on the N95 respirator and adjust it for proper fit. Some masks have adjustable face sealing areas.

6.1.3.b.

Discard an N95 respirator upon observation of damaged or missing parts, if the mask becomes contaminated with dust or fluids and/or if excessive clogging of the respirator causes breathing difficulty. If the N95 respirator has a replaceable dust filter, replace the dust filter with a new one when normal breathing becomes difficult.

6.2 Air-Purifying Half Mask Respirators

6.2.1. Availability and types for use.

Half mask respirators are the most widely used types of respirators; several brands and sizes are available on the market to assure employee comfort and a satisfactory fit. Various types of filters, chemical cartridges and combination filter cartridges are available for employee protection.

6.2.2. Limitations.

Since this type of respirator does not supply air, it cannot be used in oxygen deficient atmospheres, in IDLH atmospheres or in untested confined spaces. It can only be used for protection against the contaminants and the concentration limits listed on the cartridge. The wearer should leave an area immediately if gas/vapor is smelled inside the mask or if breathing resistance increases.

An air purifying respirator should not b

Hold the mask so the narrow nose cup points upward.

6.2.3.b.

Grasp both lower mask straps and hook them behind the neck, allowing the chin to fit in first.

6.2.3.c.

Grasp both top straps and hook them behind the head and above the ears, making sure of a proper fit on the nose.

6.2.3.d.

Adjust the straps so the fit is snug but comfortable by pulling both straps simultaneously to the rear and not outward.

6.2.3.e.

Check for leaks by performing a qualitative negative/positive pressure user seal check. (See qualitative fit testing section.)

6.2.3.f

Each user of respiratory protective equipment must inspect, clean, and maintain the respirator after each use. Any parts showing wear must be replaced at this time with parts approved for the specific respirator.

7.0 Maintenance and Care of Respirators

The primary responsibility for maintaining the respirator in proper and clean condition rests with the employee. Minor repair and/or adjustment may be made on the spot; major repairs require removing respirator from service.

7.1 Inspection for Defects

7.1.1. Examine the face piece for:

7.1.1.a.

Excessive dirt

7.1.3.a.

Foreign material such as detergent residue, dust, or human hair

7.1.3.b.

Cracks, tears, pinholes, or distortions in the valve material

7.1.3.c.

Improper insertion of valve body in face piece

7.1.3.d.

Missing or defective valve cover

7.1.3.e.

Improper installation of valve in the valve body

7.1.4 Examine the air purifying element for:

7.1.4.a.

Correct cartridge, canister, or filter for the hazard.

7.1.4.b.

Incorrect installation, loose connections, missing or worn gasket or cross threading in the holder

7.1.4.c.

Expired shelf life date on the cartridge or canister.

7.1.4.d.

Cracks or dents in the outside case of the filter, cartridge, or canister

7.2 Cleaning

7.2.1

Respirators must be placed in sealed plastic bags or other suitable containers and

8.1 Negative Pressure User Seal Check

This test must be performed before each use and should be performed periodically during use.

This test is performed by closing off the inlets of the canister, cartridges or filters by

10.0.1

Cartridges shall be changed out each year prior to the start of the use of pesticides.

10.0.2

The cartridges shall be changed out if while being used voluntarily for work involving particulates the wearer notices a change in resistance when breathing.

10.0.3

Cartridges shall be replaced if damage i.e., cracks or deformation are noted on it.

