Respiratory Protection Policy

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General Description

Policy Summary:

Provide guidelines for the use of respirators and the maintenance of a respirator program in environments deemed hazardous to individuals.

Purpose:

The purpose of this policy is to provide guidelines for the use of respirators and the maintenance of a respirator program in environments deemed hazardous to individuals (i.e. employees/students). This program establishes rules required by the Occupational Safety and Health Administration (OSHA) under Title 29 Code of Federal Regulations Part 1910.134.

Respirators are required when individuals on campus are involved in work settings that may expose them to chemicals, particulates, or biological agents in the air that are at harmful levels.

The OSHA Respiratory Protection Program states the workplace (Trinity University) must provide respirators, training, and medical evaluations at no cost to the individual. Each affected department/office provides the actual PPE.

In workplaces where respirators are necessary to protect the health of the individuals or whenever respirators are required. Trinity University has established and implemented a written respiratory protection program with worksite-specific procedures. The program is updated as necessary to reflect those changes in workplace conditions that affect respirator use.

Policy Content

Responsibilities

Environmental Health & Safety

- Establishing and implementing a written respiratory protection program.
- Identifying and evaluating the respiratory hazard in the workplace.

- Providing fit testing for individuals only after an evaluation of the work area and if the individual has been cleared by a physician or other licensed health care professional (PLHCP) to wear a respirator.
- Providing the OSHA Respirator Medical Evaluation Questionnaire. Per OSHA, the medical questionnaire and examinations are administered confidentially during the individual's normal working hours or at a time and place convenient to the individual. The medical questionnaire is administered in a manner that ensures that the individual understands its content.
- Providing training for individuals in the proper use of respirators, including putting on and removing them, any limitations on their use, and their maintenance.
- Maintaining records of fit test results, training, and medical approvals.

Supervisors/Principal Investigators (P.I.), or Department Head

Contacting EHS for a risk hazard evaluation if personnel may require a respirator; or if personnel feel they may require one.

Employees/Students

Individuals in the Respiratory Protection Program are responsible for:

- Reporting observed or suspected malfunctioning respirator to Supervisor/P.I.
- Annually renewing medical clearance by completing the medical questionnaire, fit test, and training (as required).
- Notifying Supervisor/P.I. of any changes. (See Fit Test Requirements)

Steps taken for respirator protection

1. Individuals must review administrative controls; these include substituting less toxic materials, if possible, reassessing the task to see if exposure can be minimized or eliminated, and the possibility of job rotation to reduce the exposure of anyone person down to acceptable levels.
2. Individuals must seek engineering controls such as fume hoods/local exhaust systems.
3. If the above two steps cannot be achieved, provide personal protective equipment (PPE), and see (Steps to Become Fit Tested and Respirator Flow Chart).

Steps to become fit tested

1. Individuals must notify the Supervisor that they want to use a respirator.
2. Supervisor submits a Request for Risk Hazard Evaluation to EHS.
3. EHS confirms if a respirator is required.
4. If required, individuals contact EHS for a Respirator Medical Evaluation Form and complete the form.

5. Take form to a Nova Medical Center for a medical evaluation. Nova Medical Center will contact Human Resources with the results (i.e. Pass or Fail).
6. EHS will contact individuals with results. If you passed the medical evaluation, you may proceed with fit testing. If you failed the medical evaluation, you cannot wear a respirator.
7. Complete and pass fit test with EHS.
8. Complete training requirements through EHS.
9. Individuals are approved to wear respirator only after steps 1-6 have been completed.

Medical Evaluation

A medical evaluation is required of all individuals wearing respirators prior to respiratory use, unless it is for voluntary use (See Voluntary Use of Respirators). The purpose of the medical evaluation is to assure that personnel are psychologically and physically fit to wear a respirator. Medical evaluations are conducted by a physician or other licensed health care professional (PLHCP) as required per29 CFR 1910.134(e). Exceptions to completing the Respirator Medical Evaluation Form will be granted if an individual has completed a physical examination within the past year equivalent to questions 1-9 on Respirator Medical Evaluation Form.

The medical evaluation and examinations are administered confidentially during the individuals normal working hours or at a time and place convenient to the individual. The medical evaluation is administered in a manner that ensures that the individual understands its content. All medical evaluations will be stored with the Office of Human Resources.

Test Method (QNFT)

Quantitative fit test (QNFT) means an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator. This method of testing will be conducted by EHS.

Training and retraining

Individuals must be able to demonstrate knowledge of at least the following:

- Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator;
- What the limitations and capabilities of the respirator are;
- How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions;
- How to inspect, put on and remove, use, and check the seals of the respirator;
- What the procedures are for maintenance and storage of the respirator;
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and

The training must be conducted in a manner that is understandable to the individual. Retraining is administered annually, and when the following situations occur:

- Changes in the workplace or the type of respirator render previous training obsolete;
- Inadequacies in the individual's knowledge or use of the respirator indicate that the individual has not retained the requisite understanding or skill;
- When a different facepiece is used;
- Significant weight change;
- Significant facial scarring;
- Significant dental changes;
- Reconstructive or cosmetic surgery; or
- Any other condition that may interfere with overall fit.

Maintenance and Care of Respirators

Respirators should be cleaned and disinfected at the following intervals:

- Respirators issued for the exclusive use of an individual are cleaned and disinfected as often as necessary to be maintained in a sanitary condition;
- Respirators issued to more than one individual are cleaned and disinfected before being worn by different individuals.
- Respirators maintained for emergency use are cleaned and disinfected after each use.
- Respirators used in fit testing and training are cleaned and disinfected after each use.

Individuals must ensure storage of respirators is carried out as follows:
All respirators are stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals;

Respirators must:

- be kept accessible to the work area,
- stored in compartments or in covers that are clearly marked as containing emergency respirators, and
- stored in accordance with any applicable manufacturer instructions.

Inspection

- All respirators used in routine situations are inspected before each use and during cleaning.
- All respirators maintained for use in emergency situations are inspected at least monthly and in accordance with the manufacturer's recommendations, and are checked for proper function before and after each use.

- A check of respirator function, tightness of connections, and the condition of the various parts including, but not limited to, the facepiece, head straps, valves, connecting tube, and cartridges, canisters or filters.
- Respirator must be checked for pliability and signs of deterioration.

Repairs

- Repairs or adjustments to respirators are to be made only by persons appropriately trained to perform such operations and must use only the respirator manufacturer's NIOSH-approved parts designed for the respirator.
- Repairs are made according to the manufacturer's recommendations and specifications for the type and extent of repairs to be performed.
- Reducing and admission valves, regulators, and alarms are adjusted or repaired only by the manufacturer or a technician trained by the manufacturer.

Continuing respirator effectiveness
For continued respirator effectiveness, individuals are advised:

- to wash their faces and respirator facepieces as necessary to prevent eye or skin irritation associated with respirator use;
- to replace the respirator or the filter, cartridge, or canister elements; and
- that departments must replace or repair the respirator if the individual detects vapor or gas breakthrough, changes in breathing resistance, or leakage of the facepiece, before allowing the individual to return to the work area.

Facepiece seal protection
EHS does not permit respirators with tight-fitting facepieces to be worn by individuals who have: facial hair that lies along the sealing area of the respirator, such as beards, sideburns, moustaches, or even a few days growth of stubble; or

Any condition that interferes with the face-to-facepiece seal or valve function. If an employee wears corrective glasses or goggles or other personal protective equipment, EHS assures that such equipment is worn in a manner that does not interfere with the seal of the facepiece to the face of the user.

Recordkeeping

Records of medical evaluations required by this section are retained and made available in accordance with OSHA's Access to employee exposure and medical records (At least the duration of employment plus 30 years).

EHS establishes a record of the quantitative fit tests administered to an employee including:

- The name and employee badge number of the employee tested;

- Type of fit test performed;
- Specific make, model, style, and size of respirator tested;
- Date of test; and
- The pass/fail results for QNFTs.

The Office of Human Resources will retain medical evaluation records.

Fit test records are retained for respirator users until the next fit test is administered. A written copy of the current respirator program is kept with the Department of Environmental Health and Safety. Written materials required to be retained under this paragraph shall be made available upon request to affected employees.

Voluntary use of respirators

When there is no recognized hazard or overexposure present, individuals may choose to wear a respirator "voluntarily." Voluntary use of respirators (e.g. dust masks, N95) will be permitted only if the respirator will not interfere with the employee's ability to work safely.

Voluntary use of a filtering facepiece respirator does not require a medical evaluation. However, you must read and sign Appendix D (see A The employer needs only to ensure that the dust masks are not dirty or contaminated, that their use does not interfere with the employee's ability to work safety, and provide a copy of Appendix D (see Appendix C below) to each voluntary wearer.

Employees must still follow the OSHA requirements as outlined on page 2, *Steps to Become Fit Tested;* however, a fit test is NOT required. A fit test can be administered if employees decide to have one.

Performance Evaluation

Consequences of Policy Violation:

Failure to comply may result in disciplinary action, up to and including termination.

Terms & Definitions

Terms and Definitions:

Term:	Definition:
Air-purifying respirator	means a respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.
Atmosphere-supplying respirator	means a respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere, and includes supplied-air respirators (SARs) and self-contained breathing apparatus

Term:	Definition:
	(SCBA) units.
Canister or cartridge	means a container with a filter, sorbent, catalyst, or a combination of these items, which removes specific contaminants from the air passed through the container
Demand respirator	means an atmosphere-supplying respirator that admits breathing air to the facepiece only when a negative pressure is created inside the facepiece by inhalation.
End-of-service-life indicator (ESLI)	means a system that warns the respirator user of the approach of the end of adequate respiratory protection, for example, that the sorbent is approaching saturation or is no longer effective.
Filter or air purifying element	means a component used in respirators to remove solid or liquid aerosols from the inspired air.
Filtering facepiece (dust mask)	means a negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.
Fit factor	means a quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.
Fit test	means the use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual (See also Qualitative fit test QLFT and Quantitative fit test QNFT.)
High efficiency particulate air (HEPA) filter	means a filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.
Immediately dangerous to life or health (IDLH)	means an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.
Loose-fitting facepiece	means a respiratory inlet covering that is designed to form a partial seal with the face.
Negative pressure respirator (tight fitting)	means a respirator in which the air pressure inside the facepiece is negative during inhalation with respect to the ambient air pressure outside the respirator.
Physician or other licensed health care professional (PLHCP)	means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by the medical evaluation section.
Positive pressure	means a respirator in which the pressure inside the respiratory inlet

Term:	Definition:
respirator	covering exceeds the ambient air pressure outside the respirator.
Powered air-purifying respirator (PAPR)	means an air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.
Pressure demand respirator	means a positive pressure atmosphere-supplying respirator that admits breathing air to the facepiece when the positive pressure is reduced inside the facepiece by inhalation.
Qualitative fit test (QLFT)	means a pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.
Quantitative fit test (QNFT)	means an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.
Self-contained breathing apparatus (SCBA)	means an atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.
Supplied-air respirator (SAR) or airline respirator	means an atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.
Tight-fitting facepiece	means a respiratory inlet covering that forms a complete seal with the face.

Attachments

Appendix D to Section 1910.134

Related Documents

Related Content:

Respiratory Protection: https://www.osha.gov/Publications/OSHA3079/osha3079.html

Respiratory Protection standard:
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_id=12716&p_table=standards

Revision Management

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