

Georgia Institution of Technology Respiratory Protection Program 2023 POLICY

GENERAL PROCEDURES, POLICY, AND RESPONSIBILITY

GENERAL

The Occupational Safety and Health Administration (OSHA) General Industry standard for respiratory protection 29 CFR 1910.134 requires that a written respiratory protection program be established by an employer. The following procedures are based on the requirements established by OSHA.

POLICY

It is the policy of Georgia Tech to provide its students, faculty, and staff with a safe and healthful work environment. The guidelines in this program are designed to help reduce employee exposure to occupational air contaminants and oxygen deficiency.

The primary objective is to prevent excessive exposure to these contaminants. This is accomplished as far as feasible by accepted engineering and work practice control measures. When effective engineering controls are not feasible, or while they are being implemented or evaluated, respiratory protection may be required to achieve this goal. In these situations, respiratory protection is provided at no cost to students, faculty, or staff.

RESPONSIBILITIES

1. MANAGEMENT

It is Environmental Health and Safety Department at Georgia Tech's Laboratory and Chemical Safety Team's responsibility to determine what specific applications require the use of respiratory protective equipment. EHS must also provide proper respiratory protective equipment to meet the needs of each specific application. Employees must be provided with adequate training and instructions on all equipment.

2. MANAGEMENT/SUPERVISORY

Supervisors of each area are responsible for ensuring that all personnel under their control are completely

knowledgeable of the respiratory protection requirements for the areas in which they work. They are also responsible for ensuring that their subordinates comply with all facets of this respiratory protection program, including respirator inspection and maintenance. They are responsible for implementing disciplinary procedures for enrollees of Georgia Tech's Respiratory Protection Program who do not comply with respiratory program requirements.

3. ENROLLEES

It is the responsibility of the enrollee of Georgia Tech's Respiratory Protection Program to have an awareness of the respiratory protection requirements for their work areas (as explained by EHS). Enrollees of Georgia Tech's Respiratory Protection Program are also responsible for wearing the appropriate respiratory protective equipment according to proper instructions and for maintaining the equipment in a clean and operable condition.

PROGRAM ADMINISTRATION

The following individual has total and complete responsibility for the administration of the respiratory protection program:

Name: Elizabeth Marie Henry

Title: Laboratory & Chemical Safety Specialist

Department: Environmental Health & Safety

Signature: _____

This individual has the authority to act on any and all matters relating to the operation and administration of the respiratory protection program. All employees, operating departments, and service departments will fully cooperate. This person is referred to as the Respiratory Protection Program Administrator in this program.

This individual is responsible for monitoring or conducting an exposure assessment of the respiratory hazard, developing worksite-specific procedures for this program, maintaining records, and conducting program evaluations.

RESPIRATORY PROTECTION PROGRAM

MEDICAL EVALUATION

Every enrollee who is being considered for inclusion in the Respiratory Protection Program must participate in a medical evaluation. A determination of the enrollee's ability to wear a respirator while working is made initially before fit testing. Additional evaluations are made when there is a change in workplace conditions or information indicating a need for re-evaluation.

The program administrator will obtain from the PLHCP¹ a written medical determination regarding the employee's ability to use the respirator.

¹ PLHCP- Physician or other licensed healthcare professional.



If the PLHCP deems it necessary, the employee will receive a follow-up examination. This examination is provided at no cost to the enrollee. The purpose of the medical evaluation is to assure that the enrollee is physically and psychologically able to perform the assigned work while wearing respiratory protective equipment. If the PLHCP denies approval, the enrollee will not be able to participate in the Respiratory Protection Program. A medical evaluation must be completed before respirator training, fit testing of tight-fitting respirators and use.

Copies of the medical evaluation and questionnaire will be kept as a medical record in accordance with 29 CFR 1910.1020. A copy of the written medical determination will be kept in the enrollee's file.

RESPIRATOR SELECTION

1. WORK AREA MONITORING

Exposure assessment will be done to ensure proper respirator selection. To determine the exposure level, air samples of the workplace representative of the work period, exposure assessment based on analogous processes, or professional judgment will be used. Personal sampling equipment may be used in accordance with accepted industrial hygiene standards to sample each work area. The results of these samples will pinpoint areas where respiratory protection is required.

The exposure assessment will be performed prior to the task requiring respiratory protection. Periodically thereafter, as required by OSHA substance-specific standards or at least every 12 months, the exposure assessment will be reviewed to determine if respiratory protection is still required. If respiratory protection is still necessary, respirator selections will be reviewed to ensure their continued suitability.

2. RESPIRATOR SELECTION

Management selects and approves respirators for use. The selection is based on the physical and chemical properties of the air contaminants and the concentration level likely to be encountered by the employee.

The Respiratory Protection Program Administrator will immediately provide a respirator to each employee assigned to a job that requires respiratory protection.

Replacement respirators/cartridges and filters will be made available as required. When chemical cartridge respirators are used, the program administrator will establish a cartridge change schedule based on objective information or data.

The selection of the proper respirator type will be made following the procedures which are attached.

USE OF RESPIRATORS

All tight-fitting respirators (both negative and positive pressure) shall not be used with beards, other facial hair, or any condition that prevents direct contact between the face and the edge of the respirator or interferes with valve function.

Enrollees will be required to leave the contaminated area:

- Upon malfunction of the respirator
- Upon detection of leakage of contaminant into the respirator
- If increased breathing resistance of the respirator is noted
- If severe discomfort in wearing the respirator is detected
- Upon illness of the respirator wearer, including sensation of dizziness, nausea, weakness, breathing difficulty, coughing, sneezing, vomiting, fever and chills
- To wash face to prevent skin irritation.
- To change filter/cartridge elements or replace respirators whenever they detect the warning properties of the contaminant or increased breathing resistance or in accordance with the cartridge change schedule.

RESPIRATOR TRAINING & FITTING

1. TRAINING

Enrollees assigned to jobs requiring respirators will be instructed by their supervisor relative to their responsibilities in the respiratory protection program. They will also be instructed in the need, use, limitations, and care of their respirator.

Retraining is given at least every 12 months after initial training.

2. FIT TESTING

Enrollees will be properly fitted and tested for a face seal prior to use of the respirator in a contaminated area. Quantitative fit testing will be the method of fit testing.

Fit testing will be done initially upon enrollee's assignment to an area where tight-fitting respirators are required. Fit testing will be repeated at least every 12 months thereafter. All tight-fitting respirators (negative and positive pressure) will be fit tested. Positive pressure tight-fitting respirators will be fit tested in the negative pressure mode.

Fit testing will not be done on enrollees with facial hair that passes between the respirator seal and the face or interferes with valve function. Such facial hair includes stubble, beards and long sideburns.

Note: If it is determined that an individual cannot obtain an adequate fit with any tight-fitting respirator, a loose-fitting powered air purifying or supplied air respirator may be required instead.

RESPIRATOR INSPECTION, MAINTENANCE AND STORAGE

Respirators must be properly maintained to retain their original effectiveness. The maintenance program will consist of periodic inspection, repair, cleaning, and



proper storage.

INSPECTION

The wearer of a respirator will inspect it daily whenever it is in use. The program administrator or members of EHS will periodically spot-check respirators for fit, usage, and condition. The use of defective respirators is not permitted. If a defective respirator is found during an inspection, it must be returned to the program administrator.

REPAIR

During cleaning and maintenance, respirators that do not pass inspection will be removed from service and will be discarded or repaired. Repair of the respirator must be done with parts designed for the respirator in accordance with the manufacturer's instructions before reuse. No attempt will be made to replace components or make adjustments, modifications, or repairs beyond the manufacturer's recommendation.

CLEANING

Respirators not discarded after one shift use, except filtering facepiece type, will be cleaned daily (or after each use if not used daily), according to the manufacturer's instructions, by the assigned employee or other person designated by the Respiratory Protection Program Administrator.

STORAGE

Respirators not discarded after one shift of use will be stored in a location where they are protected from sunlight, dust, heat, cold, moisture, and damaging chemicals. They shall be stored in a manner to prevent deformation of the facepiece and exhalation valve. Whenever feasible, respirators not discarded after one shift use will be marked and stored in such a manner to assure that they will be worn only by the assigned employee. If use by more than one employee is required, the respirator will be cleaned between uses.

COMPRESSED AIR SYSTEMS

Special precautions will be taken to ensure breathing quality air when an air-line respirator or SCBA is to be used. This air will meet the specifications for Grade D Air established by the Compressed Gas Association as stated in Commodity Specification for Air (ANSI/CGA G-7.1), 1989. Cylinders of purchased breathing air must have a certificate of analysis from the supplier that the air meets Grade D requirements.

Air supplied from an air compressor will be tested periodically to ensure that Grade D breathing air requirements are met.

ESCAPE ONLY RESPIRATORS (OPTIONAL)

Where escape-only respirators are provided because of the potential for an emergency, personnel assigned to the area will be trained in their use. Escape only respirators shall be NIOSH certified for escape from the

atmosphere in which they will be used. Personnel not assigned to a work area, including visitors, shall be briefed on their use.

EMERGENCY USE RESPIRATORS (OPTIONAL)

Self-contained breathing apparatus may be required for emergency use. This equipment will be used only by trained personnel when it is necessary to enter hazardous atmospheres.

SPECIAL REQUIREMENTS

All potential users will be fully trained in the use of this equipment. They must also be medically qualified to wear the device. When the equipment is used, it will be tested in an uncontaminated atmosphere prior to entering the hazardous area.

An individual will not work with this apparatus in a hazardous atmosphere alone. At least one additional person suitably equipped with a similar breathing apparatus must be in contact with the first individual and must be available to render assistance if necessary.

For interior structured firefighting, additional requirements apply. (See 29 CFR 1910.134 and 1910.156).

This equipment will be inspected monthly by trained department or group personnel. Inspection and maintenance information will be recorded.

PROGRAM EVALUATION

The workplace will be reviewed and evaluated at least every 12 months² to ensure that the written respiratory protection program is being properly implemented and to consult enrollees to ensure that they are using the respirators properly. A written report will be made of each evaluation, summarizing the findings. For each deficiency identified, corrective action taken will be noted.

² The program administrator can establish more frequent evaluations/assessments.

