**RESPIRATORY PROTECTON PROGRAM**

**Purpose**

The purpose of this program is to establish procedures for the identification of hazards, use and maintenance of respiratory protection at Wichita State University (WSU), and to protect faculty, staff and students. Established procedures are compliant with OSHA 29 CFR 1910.134 Respiratory Protection Standard. This program will be available for review by all employees using respiratory protection.

**Scope**

This program applies to WSU faculty, staff, and students who are required to wear respirators during normal work operations, non-routine or emergency operations while on WSU owned property and/or worksites, while traveling and working at remote locations. The program also covers the voluntary use of respiratory protection.

This program establishes procedures to identify respiratory hazards that are present or likely to be present in the workplace including laboratories. It covers monitoring, selection, use, limitations, and maintenance. It also includes medical qualification, training, and recordkeeping requirements.

**Definitions**

**ACGIH ---** American Conference of Governmental Industrial Hygienists.

**Air-purifying respirator ---** A respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

**EHS ---** Environmental Health and Safety.

**Dust Mask ---** See filtering facepiece.

**Filtering facepiece (dust mask) ---** A negative pressure particular respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium. This would include N95 and NIOSH approved respirators. This does not include surgical masks.

**Fit test ---** 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.)

**IDLH-Immediately dangerous to life or health ---** 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.

**NIOSH ---** National Institute of Occupational Safety and Health

**Oxygen deficient atmosphere ---** An atmosphere with an oxygen content below 19.5% by volume.

**PEL ---** Permissible Exposure Limits are established by OSHA Permissible Exposure Limits.

**PLHCP ---** Physician or other licensed health care professional is an individual 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 this program.

**Powered air-purifying respiratory (PAPR) ---** An air-purifying respiratory that uses a blower to force the ambient air through air-purifying elements to the inlet covering.

**PPE ---** Personal protective equipment including respiratory protection.

**Program Administrator ---** Person responsible for program administration.

**Qualitative fit test (QLFT) ---** 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) ---** An assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

**Respirator ---** Any tight-fitting respirator, including- An atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.

**Respiratory inlet covering ---** that portion of a respirator that forms the protective barrier between the user’s respiratory tract and an air-purifying device or breathing air source, or both. It may be a facepiece, helmet, hood, suit, or a mouthpiece respirator with nose clamp.

**Respirator user ---** Any faculty, staff, or student that is required or voluntarily wears a respirator.

**Self-contained Breathing Apparatus (SCBA) ---** A tight fitting respirator where the air supply is carried by the user.

**Service life ---** The period of time that a respirator, filter or sorbent, or other respiratory equipment provides adequate protection to the wearer.

**Surgical Mask ---** A mask designed to catch the bacteria shed in liquid droplets and aerosols from the wearer’s mouth and nose. They are not designed to protect the wearer from inhaling airborne bacteria or virus particles and are less effective than respirators, such as N95 or NIOSH approved mask.

**Supplied-air respirator (SAR) or airline respirator ---** A respirator where the source of breathing air is not designed to be carried by the user.

**Tight-fitting facepiece ---** A respiratory inlet covering that forms a complete seal with the face. This includes filtering types and/or tight-fitting air-purifying respirators (APR’s), powered air-purifying respirators (PAPRs), air-supplying respirators (ASR), and self-contained breathing apparatus (SCBA).

**Voluntary use ---** Choice to wear respiratory protection when use is not required.

**Roles and Responsibilities**

**EHS Department** is responsible for the following:

* Ensures that a written program is in place
* Reviews the program periodically and monitors to ensure compliance with this program
* Ensures that employees receive appropriate training, and that training is documented
* Assist in identification and evaluation of respiratory hazards in the workplace and report findings to the affected departments
* Evaluate the workplace as necessary to ensure the program provisions are being implemented
* Recommend appropriate types of respirators to be worn, and assist in determining the service life of cartridges and filters
* Coordinate or conduct fit testing services for respirator users
* Ensure records are maintained for medical clearances, fit testing, and respirator training

**Manager/Supervisor** is responsible for the following:

* Identifying and evaluating worksite hazards for employees under their charge, notifying EHS of those hazards that may require respirator use
* Ensures that employees comply with the guidelines established by this program
* Ensures that employees complete required training, fit testing, medical evaluations and is documented
* Providing employees with respiratory protection per EHS recommendations, and the supplies and facilities necessary to properly clean, maintain and store the respiratory protection equipment

**Employees** are responsible for the following:

* Participate in all required training, medical evaluations, fit testing, and other program activities
* Inspect the respirator before each use and report any damage or malfunctions and remove from service or discard
* Wear respirator appropriately when required
* Conduct respirator Fit-Checks each time the respirator is worn
* Store, clean, and maintain the respirator
* When required to use tight-fitting respirators, removing facial hair to ensure a proper seal between the face and respirator and proper valve function
* Promptly report any symptoms of illness that may be related to respirator usage or exposure to hazardous atmospheres
* Report any changes in the workplace which may require re-evaluation of respirator use
* Report any changes of health status which affect the ability to safely wear a respirator

**PROGRAM ELEMENTS**

**Hazard evaluation and respirator selection.** Respiratory hazards must be identified and evaluated to determine the workplace exposure potential. Based on the exposure evaluation results, respirator use is classified as mandatory or voluntary and an appropriate type of respirator will be selected. For mandatory use, a NIOSH-certified respirator, cartridges and filters must be used.

**Medical evaluation and approval**. Respirator users must complete a medical evaluation and receive approval to wear a respiratory from a PHLCP. Voluntary use of FFPs requires a medical evaluation.

**Fit tests**. Fit tests must be completed prior to respirator use and then annually thereafter. Voluntary use of FFPs is the exception of this requirement.

**Training**. All respirator users must be trained initially, and annually thereafter.

**Use of respirators**. Standard operating procedures (SOPs) for use of respirators must be established.

**Inspection, storage and care**. Respirators must be inspected for damage before use, stored in sanitary conditions and maintained in usable condition.

**Program evaluation**. This program is reviewed at least every 2 years.

**PROCEDURES**

**Hazard Evaluation and Respirator Selection**

Supervisors, and other employees identify situations where respiratory protection may be required, based on professional judgment, materials being used, or other considerations. Employees or their supervisors should contact EHS to request a workplace exposure assessment.

Depending upon the exposure assessment and the level of hazard, respirator use will be designated as either mandatory or voluntary. Mandatory respirator user must be included in the WSU RPP. Voluntary users of FFPs (i.e., dust masks used for comfort) and those using face coverings for COVID-19 may use them without inclusion in the WSU RPP.

EHS will assist in the selecting the appropriate respirator, cartridges and filters based upon the hazard assessment and workplace conditions. Cartridges used for the protection from gases or vapors must have an End of Service Life Indicator (ESLI) if available. If no ESLI is available, then a written change schedule must be developed to ensure cartridges are discarded before they lose their effectiveness. EHS will assist in determining a change-out schedule for cartridges.

Employees who are required to wear a respirator will have it provided to them at no cost by their department. Voluntary use FFPs may be provided upon request.

**Voluntary Use of Respirators**

Voluntary use of respirators by employees or students in areas where respirator use is not required by this program must be approved by the employee’s supervisor or the faculty or staff supervising students. If such use is permitted, the person voluntarily using the respirator will be subject to all of the provisions in the Medical Evaluation and Approval section of this program and the section related to the Inspection, Storage and Care. In addition, employees or students using respirators voluntarily must be provided with a copy of *Appendix A: Information for Employees Using Respirators Voluntarily*. A signed copy of *Appendix A* must be maintained by the Department and a copy forwarded to WSU EHS. The exception to this rule is for filtering face-piece respirators (dust masks). Employees or students who are voluntarily using filtering face-pieces are only subject to the parts of the program relating to the proper care, cleaning, storage, and maintenance of the respirator, and must receive and sign *Appendix A* as per above.

**Medical Evaluation and Approval**

A Medical Evaluation Questionnaire must first be completed by the respirator user and given to a PLHCP for review. The questionnaire is based on information requirements established by OSHA and must be kept confidential. The PLHCP assesses the information to determine fitness for respirator use. The employee may or may not be required to visit the PLHCP in person. The PLHCP will issue a written recommendation regarding the employee’s ability to safely use a respirator. The recommendation will provide ***only***the following information:

* The ability to wear the respirator, including any medical limitations for use.
* The need for any follow-up medical evaluations.
* A statement that the PLHCP has provided the employee with a recommendation.

The medical evaluation and completion of the medical questionnaire will be completed during normal working hours, or at a time and place that is convenient to the employee. All employees will be granted the opportunity to speck with the physician about their medical evaluation, if they so request. All costs for the medical evaluations will be pay for by their department.

**Fit Testing**

Fit testing will be conducted once employees are given a copy of the employees signed Medical Recommendation for respiratory use. Fit testing will follow regulatory requirements and is mandatory when users are required to wear a tight-fitting respirator or filtering facepiece (Dust Mask) but is not required for the voluntary use of filtering facepieces.

Fit testing must be performed:

* Using the same make, model, style, and size of respirator that will be used,
* Prior to initial use in the work environment,
* Whenever a different respirator facepiece is used,
* When there are changes in the respirator user’s physical condition that could affect respirator fit (e.g., obvious change in bodyweight, facial scarring, dental changes, cosmetic surgery. Etc.), and
* At least annually thereafter.

EHS or their designee shall administer Fit Testing using OSHA accepted Quantitative Fit Test (QNFT) or Qualitative Fit Test (QLFT) protocols. Fit testing uses a test agent, either qualitatively detected by the wearer’s sense of taste, smell, or involuntary cough (irritant smoke) or qualitatively measured by an instrument, to verify the respirator’s fit. Individuals must be clean shaven for the fit test procedure and during use of tight-fitting respirators. Some styles and/or amount of facial hair may be acceptable, but must be verified by a fit test procedure and appropriately administered subsequent user seal checks.

**Training**

Training will be provided prior to requiring the employee to use a respirator in the workplace.

Training content for mandatory users must include:

* Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator.
* The limitations and capabilities of the respirator.
* 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.
* Procedures for maintenance and storage of the respirator.
* How to recognize medical signs and symptoms that may limit of prevent the effective use of respirators.
* The general requirements of this program.

Retraining must be provided:

* When changes in the workplace or respirator use are significant enough to require it.
* When observation indicates a user needs refresher training.
* For any reason to ensure respirators are used safely.

Respirator training documentation must be provided to EHS for recordkeeping purposes.

**Use of Respirators**

Respirators may not be worn when any condition exists that may result in facepiece seal leakage.

Respirators with tight-fitting facepieces will not be worn by users who have:

* Facial hair that comes between the sealing surface of the facepiece and the face or that interferes with valve function; or
* Any condition that interferes with the face-to-facepiece seal or valve function.

If a user wears corrective glasses or goggles or other personal protective equipment, the equipment must be worn in a manner that does not interfere with the seal of the facepiece to the user’s face.

For all tight-fitting respirators, employees must perform the positive and negative pressure seal checks each time they put on the respirator.

No member of the University is to knowingly work in an area which is, or is suspected of being, immediately dangerous to Life and Health (IDLH).

**Inspection, Storage and Care**

All respirators used in routine situations shall be inspected before each use and during cleaning.

Respirator inspections must at least include the following:

* A check of respirator function (i.e. are all the parts and attachments working).
* Tightness of connections.
* The condition of the various parts including, but not limited to, the facepiece, head straps, valves, connecting tubes, batteries, and cartridges, canisters or filters.
* A check of elastomeric parts for pliability and signs of deterioration.

Respirators that fail inspection or are defective cannot be used until they are repaired or replaced. Only NIOSH-approved parts for that respirator can be used for repair.

All respirators must be cared for, cleaned, maintained, stored, and repaired, as directed by the manufacturer. Respirators must be stored in a clean, resealable container, such as a plastic bag or bin, and should be protected from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals. Cartridges should be stored separately from the respirator. The respirator should be arranged so that the facepiece and exhalation valves are not bent or deformed during storage.

An individually assigned respirator which is used routinely must be cleaned as often as necessary to maintain it in a sanitary and usable condition. Respirators not individually assigned shall be cleaned and disinfected before each use.

**Supplied Air Requirements**

Employees using atmosphere-supplying respirators (i.e., supplied air lines or self-contained breathing apparatus) must be supplied with breathing gases that meet at least the requirements for Grade D breathing air. The installation, use, maintenance, storage, inspection, etc., of any supplied air system must comply with manufacturer’s instructions. WSU EHS must be contacted before installing or using any supplied air system.

**PROGRAM EVALUATION**

EHS is responsible for reviewing the Respiratory Protection Program to assure the provisions of the current written program are being properly implemented and that it continues to be effective. The Program will be updated as needed to reflect current conditions and practices.

***APPENDIX A***

**INFORMATION FOR EMPLOYEES USING RESPIRATORS VOLUNTARIY**

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become the hazard to worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning, and care, and warnings regarding the respirator’s limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else’s respirator.

