



West Virginia University

Environmental Health and Safety

Respiratory Protection Program



West Virginia University Respiratory Protection Program

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West Virginia University Respiratory Protection Program

I. Statement, Purpose and Scope

A. Statement:

West Virginia University (WVU) is dedicated to providing safe and healthful facilities for all employees and students, and complying with Federal and State occupational health and safety standards. Administrators, faculty, staff, and students share the responsibility to ensure protection against inhalation hazards through the correct use of respiratory protection devices. This program is designed to identify and designate responsibilities for implementation of the WVU Respiratory Protection Program.

B. Purpose:

To establish procedures for the selection, use and care of respiratory protection devices as outlined in 29 CFR 1910.134.

C. Scope:

This program covers all University employees.

II. Responsible Parties

A. Environmental Health and Safety

1. Assign a Respiratory Protection Program Administrator.
2. Develop the *WVU Respiratory Protection Program* with periodic review and revision as necessary.
3. Distribute the Program to each affected worksite.
4. Conduct analyses of the respiratory hazards in the workplace.
5. Identify employees who may require respiratory protection equipment.
6. Provide guidance and training to the campus community regarding the need, selection, use, limitations, maintenance, and storage of respiratory equipment.
7. Provide respirator fit-testing for respirator users.
8. Maintain training, fit-testing, and exposure monitoring records.
9. Conduct periodic worksite audits of respiratory protection activities in affected departments.
10. Assist with developing and implementing controls to reduce or eliminate the need for respiratory protection.
11. Act as an information resource for the problems and questions related to respiratory protection.

B. Occupational Medicine and all medical entities reporting to it

1. Schedule appointments for respirator users receiving services at the Occupational Medicine Department.
2. Provide or direct all required or recommended medical examinations appropriate for evaluation of respirator wearers.
3. Maintain medical records relating to consultations, examinations, and medical surveillance as required by law.
4. Provide certification that persons required to wear respirators are physically able to do so without adverse medical consequences.

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5. Notify the Respiratory Program Administrator that respirator users have successfully completed evaluations and medical exams.
6. Periodically review the overall effectiveness of the *WVU Respiratory Protection Program* pertaining to provision of medical services related to the proper use of respirators.

C. Supervisors, Laboratory Managers, Medical Monitoring Contacts, Deans/Directors

1. Identify respiratory hazards in the workplace to EHS for analysis.
2. Consult toxicology information and material safety data (i.e., Material Safety Data Sheets and Standard Operating Procedures) to identify hazards to workers under their control that require respiratory protection.
3. Complete the Respirator User Hazard Assessment Form and submit it to EHS for review (**Appendix 1**).
4. Schedule initial medical examinations, follow-up medical, fit-testing, and training for employees required to wear respirators.
5. Provide site-specific information detailing personnel, hazards, and procedures.
6. Ensure respiratory protection equipment recommended by the Respiratory Programs Administrator is purchased, properly used, cleaned, stored, and maintained.
7. Maintain an inventory of spare parts, filters, and new respirators as necessary to ensure employee access to properly-functioning equipment.
8. Ensure that defective respiratory protection equipment is removed from service immediately and not used until approved repairs are completed.
9. Allow employees to leave the respirator use area as necessary to prevent eye and/or skin irritation associated with respirator use.
10. Ensure appropriately trained and equipped employees remain in communication with respirator users inside an atmosphere considered to be Immediately Dangerous to Life and Health (IDLH).
11. Maintain records of respirator equipment inspections, exposure hazard evaluations, training, and fit-testing at the unit level.
12. Notify the Respiratory Protection Program Administrator of any problems with respirator use, or any changes in work processes that would impact airborne containment levels.
13. Notify the medical provider of any changes in an employee's medical condition, work environment, or workload that might impact the safe use of respiratory equipment.

D. Respirator Wearers

1. Comply with all required components of the *WVU Respiratory Protection Program* (medical surveillance, training, and fit-testing) **BEFORE** using any respirator.
2. Use respiratory protection equipment as instructed and in accordance with all provisions of the *WVU Respiratory Protection Program*.
3. Properly store, clean, inspect, and maintain all assigned respirator equipment.
4. Report any respirator deficiencies or malfunctions to the supervisor;

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5. Use the correct type of respiratory protection for the hazard(s) involved;
6. Inform supervisor(s) of new situations that may require a change in the use of respiratory protection equipment or if contaminant levels are expected to increase;
7. Inform supervisor(s) of any change in medical condition that might affect the safe use of respiratory protection equipment; and
8. Immediately follow emergency procedures and leave the respirator use area if a respirator fails to provide proper protection.

III. Procedures

Assistance will be provided by EHS to any Department requesting guidance, exposure monitoring, fit-testing, or training to satisfy the implementation of this policy. For additional information or if you have any questions, please contact the Respiratory Program Administrator at 304-293-3792.

A. Respirator Use Requirements

1. The use of respiratory protection equipment at WVU is strictly limited to employees who have a documented need to utilize such equipment, pass and maintain an appropriate medical evaluation, attend annual training, and complete annual fit-testing (if required). These basic requirements are described below and elsewhere in this program.
2. Respirators shall only be used to protect employees from inhalation hazards in the following circumstances:
 - a. When other options for hazard control (i.e., use of engineering controls or substitution of less toxic materials) are infeasible.
 - b. While engineering controls are installed or repaired.
 - c. During emergencies.
3. When respirators are to be used, all requirements contained within the WVU *Respiratory Protection Program* shall be followed.
4. The use of respiratory protection equipment at WVU is strictly limited to employees who have a documented need to utilize such equipment, pass and maintain an appropriate medical evaluation, attend annual training, and complete annual fit-testing (if required). These basic requirements are described below and elsewhere in this program.
5. For purposes of compliance with regulations and the WVU Respiratory Protection Program, a respirator shall be defined as any devices worn to:
 - a. Reduce or eliminate inhalation exposure to any hazardous biological, chemical, or particulate material or
 - b. Supply breathing air to the wearer.This includes respirators used to protect employees in an emergency.

B. Documentation of Respirator Needs

1. Respirators are only to be used in situations where engineering controls are infeasible or during installation of such controls. Respirators shall be provided by the employer (supervisor) when such equipment is necessary to protect the health of the employee.

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2. The supervisor is required to identify the respiratory hazard(s) in the workplace and have these hazards evaluated by EHS to determine appropriate respiratory protection equipment. EHS is responsible for evaluating respiratory hazards and recommending appropriate levels of respiratory protection.
3. In emergency situations such as:
 - a. Access to areas where the uncontrolled release of a hazardous airborne substance is suspected.
 - b. Access to confined spaces where oxygen or contaminate levels are unknown.
 - c. Hazardous material releases causing injury or illness. If the supervisor cannot identify the contaminant or if the exposure levels are unknown, the exposure shall be considered Immediately Dangerous to Life and Health (IDLH), no unauthorized persons shall enter this area. Supervisor shall provide information to EHS to permit evaluation of hazards in the workplace that may affect respirator use.

C. Respirator User Hazard Assessment

The supervisor must initiate the Respirator User Hazard Assessment Form (Appendix 1) for each employee required to use respiratory protection. This form shall be forwarded to EHS for documentation of hazard evaluations and determination of appropriate level(s) of respiratory protection equipment. EHS will then forward the information on to the medical provider to determine appropriate levels of medical surveillance of the identified tasks. Copies of the completed form will also be provided to the supervisor and the employee.

D. Medical Evaluation

Prior to respirator fit-testing, workers must be medically certified capable of wearing a respirator without adverse health consequences. Certification of medical capability shall be provided by a physician or other licensed health care professional (PLHCP). Medical evaluations may be discontinued when the employee is no longer required to use a respirator.

E. Fit Testing

The safe and effective use of respiratory protection equipment, especially negative pressure respirators, requires that the respirator be properly fitted to the employee. Poorly-fitting respirators fail to provide the expected degree of protection. Additionally, no single model or size of respirator is capable of fitting all people. Several models may be needed to determine which provides an acceptable fit. Prior to being issued a re-useable, tight-fitting respirator, the employee must successfully pass a fit-test for that brand, model, and size of respirator. Fit-testing is conducted by EHS.

An employee cannot be fit-tested nor wear a face-sealing respirator if there is any facial hair present between the skin and the face mask sealing surface. More than slight beard stubble at the sealing surface is considered excess facial hair. This includes large sideburns or chops. Employees may be permitted to keep well groomed goatees and mustaches that do not interfere with the respirator seal and/or valve

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function. Any other condition that interferes with the sealing surface of the facepiece or interferes with valve function shall be identified during fit-testing and corrected. Any employee who experiences difficulty breathing or exhibits a severe psychological reaction during any phase of fit-testing shall be referred to the University medical provider to re-evaluate whether the employee is capable of wearing a respirator.

Fit-testing shall be conducted at least annually or more frequently if any change occurs which may alter respirator fit. Such changes may include, but are not limited to:

1. Weight change,
2. Significant facial scarring in areas of the face seal,
3. Dental changes (e.g., multiple extractions or new dentures),
4. Reconstructive or cosmetic surgery in the head/face, or
5. Any condition suspected to affect the face-respirator seal (e.g., broken nose)

F. Quantitative Fit Tests

Personnel must successfully pass the quantitative fit test before being issued a respirator, and at least annually thereafter. Fit-testing methods shall conform to the minimum requirements as detailed in the OSHA Respiratory Protection Standard (29 CFR 1910.134).

A particle counting machine (Porta Count) instrument is used to accurately measure respirator fit by comparing the dust concentration in the surrounding air with the dust concentration inside the respirator. The ratio of these concentrations is called the fit factor. A modified filter cartridge or a modified respirator facepiece equipped with a sampling port is used to collect air from inside the respirator. With the sampler attached, the wearer is asked to perform a series of eight exercises to challenge the respirator fit. During these movements, any leakage is measure by the Porta Count. The fit test data is stored in a computer and a final fit test report is generated. For half-face or filtering respirators, an acceptable fit test is a measured fit factor of at least 100. Full-face respirators must demonstrate an acceptable fit factor of at least 1000, which is twice that required by OSHA.

Medical monitoring contacts are responsible for ensuring employees are fit-tested at least once per year. If any conditions or circumstances are observed by the medical monitoring contact, or the supervisor, which may impact the fit of an employee's respirator, the respirator should no longer be worn, and fit testing must be repeated. Copies of fit-test reports will be forwarded to: supervisors, individual employees and the EHS medical monitoring program coordinator. Supervisors are to ensure that employees are provided the specific brand, model, and size respirator indicated in the fit-test report. Respirators shall not be used unless successful fit-testing has been demonstrated.

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G. Failed Fit Tests

In the event that an employee is unable to pass a quantitative fit test and their work environment permits, the employee will be placed in a Powered Air Purifying Respirator (PAPR) Hood or Helmet assembly. EHS will work with the employee's department to ensure that the correct equipment is purchased.

H. Selection of Respirator

The National Institute of Occupational Safety and Health (NIOSH) establishes protection factors at different levels of respiratory protection. The protection factor indicates the minimum anticipated protection provided by a properly functioning respirator or class of respirators to a given percentage of properly fitted and trained users. For example:

- If a worker is exposed to benzene at a concentration of 10 parts per million (ppm) averaged over the 8-hour work day, and the maximum acceptable exposure limit is 0.5 ppm, a respirator with a protection factor of at least 20 (10ppm/0.5ppm) would be necessary to satisfy requirements. An air-purifying half-mask respirator (protection factor = 10) would not be adequate.
- If a worker has an 8-hour lead dust exposure of 0.20 milligrams per cubic meter (mg/m³), and the maximum acceptable exposure limit is 0.05 mg/m³, a respirator with a protection factor of at least 4 (0.20mg/0.05mg) would be necessary to satisfy requirements. An air-purifying half-mask respirator (protection factor = 10) would be acceptable.

The following table indicates the various types of respirators available, and the maximum NIOSH protection factor assigned to each:

Type of respirator	Quarter mask	Half mask	Full facepiece	Helmet/hood	Loose-fitting facepiece
1. Air-Purifying Respirator	5	10	50	.....	.....
2. Powered Air-Purifying Respirator (PAPR)	.....	50	1,000	25/1,000	25
Supplied-Air Respirator (SAR) or Airline Respirator					
➤ Demand mode	.....	10	50	.....	.....
➤ Continuous flow mode	.....	50	1,000	25/1,000	25
➤ Pressure-demand or other positive-pressure mode	.....	50	1,000	.....	.....
4. Self-Contained Breathing Apparatus (SCBA)					
➤ Demand mode	.....	10	50	50	.....
➤ Pressure-demand or other positive-pressure mode (e.g., open/closed circuit)	10,000	10,000

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WVU will follow the NIOSH Guide to Industrial Respiratory Protection for selection of respirator equipment. Additional information concerning types and descriptions of these respirators (including their limitations) is available from EHS.

All respirators used by WVU personnel shall be approved by NIOSH for the inhalation hazard presented to the employee. Selection of respiratory protection equipment shall be based upon:

1. The nature of the respiratory hazard,
2. The extent or concentration of the hazard,
3. Work requirements and conditions,
4. Characteristics and limitations of available respirators, and
5. Minimal equipment requirements established by regulation or policy.

Air-purifying respirators shall not be used:

1. If atmospheres are oxygen-deficient (i.e., < 19.5% oxygen),
2. If contaminant concentrations are considered “Immediately Dangerous to Life and Health” (IDLH)
3. If contaminant concentrations are unknown, or
4. For emergencies where the concentration and/or type of contaminant is unknown.

Selection criteria will be documented with the Respirator User Hazard Assessment Form. It is often necessary to perform exposure monitoring to evaluate the need for and type of respiratory protection appropriate for the task(s). EHS is responsible for final determination of employees’ respiratory protection needs. Occupational Medicine will not provide a respiratory protection medical certification for any employee unless a Respirator User Hazard Assessment Form (Appendix 1) has been submitted by the supervisor, reviewed by EHS, and filed in the employee’s medical records.

Supervisors are required to have respirator selection criteria reassessed whenever circumstances change that may compel use of different levels of respiratory protection (e.g., introduction of new inhalation hazards, work practice modifications resulting in increased chemical exposures, etc.), or if the work environment places increased physical demands upon the employee. Documentation of these changes will be made by the supervisor via the Respirator User Hazard Assessment Form (Appendix 1).

The following factors shall be taken into account by EHS when selecting the proper respirator:

1. Characteristic of the Hazardous Operation or Process,
2. Nature of the Contaminant,
3. Concentration of the Contaminant,
4. Respirator Enclosure Design,
5. Location of the Hazardous Area,
6. Physical Conditions in the Work Environment,
7. Vision, and
8. Communications.

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I. Respirator Cleaning, Storage, Inspection, and Maintenance

The following information is intended as a guide for appropriate cleaning, storage, inspection, and maintenance practices.

1. Cleaning and Disinfecting

Respirators shall be regularly cleaned and disinfected. Cleaning frequencies, facilities, and materials used for cleaning/ disinfecting must be determined by the supervisor. Shared respirators or emergency-use respirators must be cleaned and disinfected after each use.

Manufacturer recommendations shall be followed when cleaning respirators.

The following procedure can be used when cleaning and disinfecting respirators:

- a. Disassemble respirator, removing any filters, canisters, or cartridges.
- b. Wash the facepiece and associated parts in a mild detergent with warm water. Do not use organic solvents.
- c. Rinse completely in clean warm water.
- d. Wipe the respirator with disinfectant wipes (70% Isopropyl Alcohol) to kill germs.
- e. Air-dry in a clean area.
- f. Reassemble the respirator and replace any defective parts.
- g. Place in a clean, dry plastic bag or other air tight container.

Note: The supervisor will ensure an adequate supply of appropriate cleaning and disinfecting material. If supplies are low, employees should contact their supervisor.

2. Storage

When not in use, the respirators and cartridges shall be kept in a sealed container and stored in a clean, dry, moderate temperature, and non-contaminated environment. It is especially important to keep gas and vapor cartridges in a sealed container so they do not passively absorb gases and vapors from the storage area and thereby reduce the filter service life. Emergency use respirators shall be stored in a sturdy compartment that is quickly accessible in the work area and clearly marked.

3. Maintenance of Respirator

Respirators are to be properly maintained at all times to ensure they function properly and adequately to protect the employee. Maintenance involves a thorough visual inspection for cleanliness and defects. Worn or deteriorated parts will be replaced prior to use. No components are to be replaced or repairs made beyond those recommended by the manufacturer.

Each respirator shall be inspected routinely before and after use. A respirator shall be inspected by the user immediately prior to each use to ensure that it is in proper working condition. After cleaning, each respirator shall be inspected to determine if it is properly functioning or if it needs repairs or replacement of parts.

4. Replacement Parts

Consult the manufacturer or distributor for replacement parts and filters. EHS can assist you with this process.

J. Respirator Cartridge Change-Out Schedule

Air-purifying respirators function by removing contaminants from the air before inhalation. Contaminants are removed by filtration (e.g., asbestos and glass fibers), adsorption (e.g., benzene, carbon tetrachloride), or by chemical reaction (e.g., ammonia). Filters or cartridges designed for contaminant removal have limited effective service lives. The supervisor for each worksite utilizing air-purifying respirators must develop a change schedule which specifies when cartridges are to be replaced and what information was relied upon to make this judgment. EHS can assist supervisors with this process. The service life of a cartridge depends upon many factors, including environmental conditions, breathing rate, cartridge filtering capacity, and the amount of contaminants in the air. A safety factor should be applied to the service life estimate to assure that the change schedule is a conservative estimate. Determination of service life can be accomplished through one of several methods:

1. **Manufacturer's Recommendation**
Contact the respirator/ cartridge manufacturer and provide details of the inhalation hazards (material identification and exposure concentrations) and work conditions (humidity and work rate). The manufacturer calculates and provides testing data indicating the expected breakthrough time. A safety factor adjustment is made at this time to indicate the change-out schedule.
2. **Experimental "Rule of Thumb"**
Experimental work can allow for a generalization or "Rule of Thumb" that broadly defines the service life of cartridges exposed to chemicals. One such "Rule of Thumb" for estimating organic vapor cartridge service life is found in chapter 36 of the AIHA publication "The Occupational Environment- Its Control and Evaluation." The rule says:
 - If the chemical's boiling point is greater than 70°C and the exposure concentration is less than 200 ppm you can expect a service life of 8 hours at a normal work rate.
 - Service life is inversely proportional to work rate. In other words, as work rate increases, service life decreases.
 - Reducing concentration by a factor of 10 will increase the service life by a factor of 5.
 - Humidity above 85% will reduce the service life by 50%.

❖ *The "Rule of Thumb" is not generally recognized as a commonly-accepted method to determine cartridge change-out schedules.*
3. **End-of-Service-Life-Indicator (ESLI)**
Some respirator systems are equipped with an ESLI. Cartridges must be changed immediately when indicated.
4. **Breathing Resistance**
Employees wearing air-purifying respirators for protection against particulates (e.g., asbestos, wood, dust, lead) must change filters if any breathing difficulties (i.e., resistance) are experienced while wearing their masks. Employees wearing powered air-purifying respirators for protection against particulates must change filters when airflow rates drop below 4 cubic feet per minute (6 cubic feet per minute for loose-fitting models).

K. Voluntary Use

1. Disposable Dust Masks

Filtering facepiece respirators (e.g., disposable dust masks) are often used to provide relief from nuisance levels of dusts and mists. They cannot be used for protection against fumes, vapors, gases, asbestos, sandblasting, or paint sprays. If employees elect to voluntarily use disposable respirators, and if concentrations do not exceed the OSHA Permissible Exposure Limit (PEL), disposable masks may be provided without medical certification or fit-testing. Employees utilizing disposable dust masks must receive annual respiratory protection training and must be provided with the information contained in the Voluntary Respirator Use Fact Sheet (Appendix 2) and 29 CFR 19.10134 Appendix D (Appendix 3). Supervisors and employees issuing disposable masks are responsible for providing a copy of these appendices to affected employees. Supervisors are encouraged to document training and receipt of copies of the appendices.

2. Tight-Fitting Face Piece Respirator

If an employee wants to wear a respirator and EHS has determined that respiratory protection is not necessary, the employee's supervisor must contact WVU Occupational Medicine for an appointment. Occupational Medicine will determine if the employee is medically able to wear a tight-fitting facepiece respirator. The findings will be sent back to the employee. Once the employee is medically cleared to voluntarily wear a tight-fitting facepiece respirator, the employee is responsible for purchasing and maintaining their own respiratory protection equipment. The employee must receive annual respiratory protection training and must be provided with the information contained in Appendices II and III. Supervisors are encouraged to document provision of Appendices II and III. Costs of medical monitoring and fit-testing will be incurred by the employee's department

L. Student Use of Respiratory Protection

Supervisors who believe a student may need respiratory protection must follow the same steps required for employees. The student's supervisor must complete a Respirator User Hazard Assessment Form (Appendix 1) and submit it to EHS for review. If EHS determines that respiratory protection is required, the supervisor is responsible for scheduling and paying for: the medical evaluation, fit test, and purchasing the necessary respiratory protection equipment

1. All employees who use a respirator in the performance of their work, are required to complete the training program before initial use, and at least annually thereafter. Training program objectives include specific procedures applicable to their work areas and assignments as contained in the written WVU *Respiratory Protection Program*.
2. Each respirator wearer shall be given initial training covering the following topics:
 - a. Contents of the OSHA Respiratory Protection Standard,
 - b. Respiratory Hazards and Health Effects,

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- c. How Respirators Work,
- d. Medical Evaluation,
- e. Respirator Selection Rationale,
- f. Proper Use and Limitations of Respirators,
- g. Proper Use in Emergency Situations,
- h. Fit Testing,
- i. Respirator Donning/ Doffing,
- j. User Seal Checks,
- k. Fit Checks, and
- l. Maintenance, Cleaning, and Storage.
- m. More frequent retraining will be required if:
 - i. There are changes in the work area that impact respirator use (rendering previous training obsolete),
 - ii. The employee no longer has the skill and understanding to follow and use the respirator per previous training and terms of the WVU *Respiratory Protection Program*, or
 - iii. Any other situations occurring that cause the supervisor or program administrator to recommend that the employee be retrained.
3. Supervisors must attend the initial respiratory protection training. Supervisors are not required to attend annual refresher training unless their job-task mandates the use of respiratory protection.
4. Employees required to wear respiratory protection equipment shall be trained in the care, use, limitations, and selection of the equipment. Training will vary depending on the type of respirator issued and the nature of the inhalation hazard. At a minimum, all employees shall receive training prior to first use of a respirator and annually thereafter. Training shall be conducted or coordinated by EHS and will include all required components as stipulated in OSHA regulation 29 CFR 1910.134. To schedule training, please contact Environmental Health and Safety at 304-293-3792.

IV. Recordkeeping

- A. Medical monitoring contacts and EHS shall maintain records of training. Medical monitoring contacts are responsible for ensuring employees are currently trained and shall ensure respirators are not issued to or used by any employee who has not received training in the past 12 months.
- B. Supervisors and medical monitoring contacts shall maintain records of current fit-tests to assure testing currency and procurement of appropriate respiratory protection equipment. Medical monitoring contacts are responsible for ensuring employees have been fit-tested within the past 12 months. With the assistance of supervisors, the medical monitoring contact shall ensure that respirators are not issued to or used by any employee who has not met this requirement.

V. Program Review

- A. **Evaluation of Respirator Program Effectiveness**
Periodic review of the effectiveness of the respirator program is essential. EHS will conduct periodic surveys to determine the effectiveness of the respirator program.

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This may include: worksite inspections, interviews with respirator wearers, air-monitoring, and/or review of records. Acceptance of respirators by users is important. Users will be consulted periodically about their acceptance of wearing respirators. This includes: comfort, resistance to breathing, fatigue, interference with vision, interference with communications, restriction of movement, interference with job performance, and confidence in the effectiveness of the respirator to provide adequate protection.

The above information can serve as an indication of the degree of protection provided by respirators and the effectiveness of the respirator program. Action shall be taken to correct any deficiencies noted with the program. The findings of the respirator program evaluation will be reported to the Director of EHS, and the report shall list plans to correct faults in the program and target dates for the implementation of the plans.

B. Worksite Audits

Supervisors and/or medical monitoring contacts are required to periodically evaluate the use of respiratory protection for areas/employees under their control. The purpose of the audit is to identify deficiencies and issues that require correction or action. At a minimum, the following should be evaluated:

1. Are new materials being used that require hazard assessment?
2. Are all workers using respirators currently trained, fit-tested, and medically monitored?
3. Are respirators being properly used, stored, maintained, and cleaned?
4. Is the written *WVU Respiratory Protection Program* current and complete?
5. Have all workers who are voluntarily using respirators (including disposable models) received a copy of the Voluntary Use of Respirators Fact Sheet?
6. Are cartridges/ filters changed according to the change-out schedule contained in the *WVU Respiratory Protection Program*?
7. Are workers routinely inspecting respirators?

Any problems or deficiencies identified during the audit must be expeditiously corrected. EHS will assist supervisors and/or medical monitoring contacts with appropriate guidance when requested



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Appendix 1
Respirator User Hazard Assessment Form
General Information

Employee _____

Job Title _____

Describe work area

Describe task that may cause exposure

Describe ventilation present (I.e. fumehood, biosafety cabinet, local exhausts, etc.)

Check potential hazard type(s) present:

- Gas or Vapor (i.e. formaldehyde, acid gas, aromatics)
- Particulate (i.e. dusts, lead, asbestos)
- Biological (i.e. TB)
- Oxygen Displacement (i.e. refrigerants, argon)

Could the work area become oxygen deficient? Yes No

Specify contaminant, if known:

Is the contaminant an eye irritant or can it cause eye irritation at the exposure concentration? Yes No

Submit to: Environmental Health & Safety
Attention: Respiratory Program Administrator
PO Box 6551
Morgantown, WV 26506-6551



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Appendix 2 Voluntary Respirator Use Fact Sheet General Industry Requirements

Voluntary use of respiratory protection means that an employee chooses to wear a respirator, even though a respirator is not required by the employer or by any OSHA standard.

Employers who allow respirator use must make sure that the worker is medically able to use the respirator and the respirator itself does not create a hazard. The employer must pay for the medical evaluation when a medical evaluation is required.

The employer must implement elements of a respiratory protection program based on the type of voluntary respiratory protection used.

Employers must provide a copy of 29 CFR 1910.134 Appendix D (Appendix 3 in the *WVU Respiratory Protection Program*) to employees who voluntarily use a dust mask.

For all other types of respirators, additional requirements include a written respiratory protection program that covers medical fitness and proper maintenance procedures.



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Appendix 3 Information for Employees Using Respirators When Not Required Under the Standard 29 CFR 1910.134 Appendix D

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 a hazard to the 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 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 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.