RESPIRATOR PROTECTION PROGRAM
UW-PLATTEVILLE
Reviewed 4/2016

This written program complies with the respirator-related provision of OSHA’s standard 29 CFR 1910.134 and the Wisconsin Administrative Code, Commerce 32, Public Employee Safety and Health. The program administrator is the Campus Risk Management Officer who will review the program periodically to ensure its effectiveness. The employer is responsible for all costs associated with the required respirators, training and medical evaluations that are provided. Employees may review a copy of the Respirator Protection Program, which is located in the Risk Management Office.

PERMISSABLE PRACTICE
Respirators are required where “effective engineering controls are not feasible or while they are being instituted.” UW-Platteville will provide employees with respirators that are “applicable and suitable” for the purpose intended “when such equipment is necessary to protect the health of the employees”. Supervisors shall be responsible for identifying any changes in employee exposures and identifying new employees who will need to be in the Respirator Protection Program.

RESPIRATOR SELECTION
Respirators are selected on the basis of respiratory hazards to which the worker is exposed and workplace and other factors that affect respirator performance and reliability. Only respirators certified by the National Institute for Occupational Safety and Health (NIOSH) may be used in compliance with the conditions of its certification. University safety staff/supervisors will identify and evaluate respiratory hazards in the workplace, including a reasonable estimate of employee exposures and identification of the contaminant’s chemical state and physical form. The following criteria will also be taken into account:

1. Recommendations in the current NIOSH “Pocket Guide to Chemical Hazards”;
2. Recommendations of pertinent, current MSDS for the material in use;
3. Chemical identity and concentration of air contaminant.

MEDICAL EVALUATIONS
Every potential respirator user shall have a medical evaluation to certify that the employee is medically fit for respirator use prior to the employees fit test and actual use of any respirator.
The medical evaluation will be performed by a physician or other licensed health care professional (PLHCP). Currently, UW-Platteville contracts with Medivan, Inc. to conduct annual medical evaluations. The initial examination shall use a questionnaire, which shall be confidentially filled out and sealed in an envelope by the employee. Follow-up medical examinations are required if the PLHCP notes any positive responses for questions 1 through 8 on the questionnaire or upon the PLHCP’s other recommendations. All medical evaluation requirements shall be fulfilled during hours that the employee is in pay status and the medical questionnaire and examinations shall be administered confidentially during the employees’ normal working hours.

Additional medical evaluations are required under certain circumstances:

1. Employee reports medical signs or symptoms related to the ability to use a respirator;
2. Physician, program administrator, or supervisor recommends reevaluation
3. Information from the respirator program, including observations made during fit-testing and program evaluations indicates a need,
4. Change occurs in workplace conditions that may substantially increase the physiological burden of an employee

The PLHCP shall provide the program administrator with a written recommendation regarding the employees’ ability to use a respirator. Their recommendation shall contain:

1. A statement as to the employee’s medical ability to use a respirator;
2. Any limitations regarding respirator use;
3. Any need for follow-up medical evaluation;
4. Recommended frequency, if any, for follow-up medical evaluations; and
5. A statement that the PLHCP has provided the employee with a copy of the written recommendation.

The written medical evaluation shall be confidentially maintained and made available in accordance with the OSHA requirements codified in 29 CFR 1910.1020.

FIT TESTING

It is essential that respirators must fit properly in order to provide protection. If a tight seal is not maintained between the facepiece and the employee’s face, contaminated air will be drawn into the facepiece and be breathed by the employee. Fit testing seeks to protect the employee against breathing contaminated ambient air and is one of the core provisions of our respirator program.

UW-Platteville requires that employees who wear a respirator have no facial hair that comes between the sealing surface of the facepiece and the face or that interferes with valve function.
If an employee does have facial hair they will not be fit tested and will not be permitted to wear a respirator.

UW-Platteville requires that employees who are required to wear respirators are fit tested at the following times with the same make, model, style, and size of respirator that will be used:

- Before any employees are required to use any respirator with a negative or positive pressure tight-fitting facepiece;
- Whenever a different respirator facepiece (size, style, model, or make) is used
- At least annually;
- Whenever the employee reports, or UW-Platteville, PLHCP, supervisor, or program administrator makes visual observations of changes in the employee’s physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight; and
- When the employee, subsequently after passing a QLFT or QNFT, notifies the company, or the supervisor that the fit of the respirator is unacceptable. That employee will be retested with a different respirator facepiece.

Following medical evaluation resulting in a positive recommendation that an employee is medically fit for respirator use, each employee shall be fit tested prior to initial use and at least annually thereafter. All employees using a negative or positive pressure tight-fitting facepiece respirator must pass an appropriate qualitative fit test (QLFT) or quantitative fit test (QNFT). A satisfactory fit test shall result in the chosen respirator face piece being assigned to the specific employee for their individual and exclusive use. Shared negative pressure respirator use is not permitted under the requirements of this program.

Currently, Medivan Inc conducts the University’s annual medical evaluations, pulmonary function tests and QLFT’s for employees who are already in the respiratory protection program or who are new. If an employee is hired after the date that Medivan has been to campus the Physician at the student health services may review the medical evaluation and send the results to the Risk Management Officer, who will then conduct a QLFT if the physician has determined that the employee is medically approved to wear a respirator. If the physician is not available, the employee may be sent to Tri-State Occupational Health in Dubuque, IA. The Supervisor shall arrange this with the Risk Management Officer.

USE OF RESPIRATORS

Tight fitting respirators shall not be worn by employees who have facial hair or any condition that interferes and/or comes between the face-to-facepiece seal or valve function. Supervisors shall be responsible for ensuring that employees do not have facial hair that interferes with the
seal of the respirator. This is referenced in OSHA standard 1910.134(g)(1)(i)(A) and 1910.134(g)(1)(i)(B). Personal protective equipment (PPE) shall also not interfere with the seal of the facepiece to the face of the user.

The supervisor is to also ensure that employees perform a user seal check each time the respirator is used to ensure that there is an adequate seal. Either the positive and negative pressure checks listed, or the respirator manufacturer’s recommended user seal check method shall be used.

**Positive Pressure Check** - Close off the exhalation valve and exhale gently into the facepiece. The face fit is considered satisfactory if a slight positive pressure can be built up inside the facepiece without any evidence of outward leakage of air at the seal. For most respirators this method of leak testing requires the wearer to first remove the exhalation valve cover before closing off the exhalation valve and then carefully replacing it after the test.

**Negative Pressure Check** - Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s) or by replacing the filter seal(s), inhale gently so that the facepiece collapses slightly, and hold the breath for ten seconds. The design of the inlet opening of some cartridges cannot be effectively covered with the palm of the hand. The test can be performed by covering the inlet opening of the cartridge with a thin latex or nitrile glove. If the facepiece remains in its slightly collapsed condition and no inward leakage of air is detected, the tightness of the respirator is considered satisfactory.

**The Manufacturer’s Recommended User Seal Check Procedures** - The respirator manufacturer’s recommended procedures for performing a user seal check may be used instead of the positive and negative pressure check procedures provided that the employer demonstrates that the manufacturer’s procedures are equally effective.

**ROUTINE USE OF RESPIRATORS**
Respirators must be inspected before and after each use and during cleaning. This includes:

- Inspecting the tightness of connections and condition of the facepiece headbands, valves and canisters;
- Inspecting rubber and elastomer parts for pliability and signs of deterioration;
- Supervisors monitoring the use of respirators by their employees to ensure that the correct respirators and cartridges are being used.

If a respirator fails an inspection or are otherwise found to be defective, it shall be removed from service, and discarded, repaired or adjusted in accordance with the following procedures:

- Repairs or adjustments to respirators are to be made only by persons appropriately trained to perform such operations and only with the respirator manufacturer’s NIOSH-approved parts designed for the respirator;
• Repairs must be made according to the manufacturer’s recommendations and specifications for the type and extent of repairs to be performed.

CONTINUING RESPIRATOR EFFECTIVENESS
Appropriate surveillance must be maintained of work area conditions and degree of employee exposure or stress. Supervisors shall identify when there is a change in the condition of an employee’s work area or a change in the degree of employee’s exposure or stress that may affect respirator effectiveness. When this occurs, supervisors shall communicate this with the Risk Management Officer so the continued effectiveness of the respirator shall be re-evaluated.

If the employee detects vapor or gas breakthrough, changes in breathing resistance, or leakage of the facepiece, the respirator shall be replaced or repaired before allowing the employee to return to the work area.

MAINTENANCE AND CARE OF RESPIRATORS
Employees must clean and disinfect respirators using the procedures described in training and below or equally effective manufacturer’s procedures at the following intervals:
• As often as necessary to maintain a sanitary condition for exclusive-use respirators
• After each use for emergency respirators and those used in fit testing and training.

Respirators must be stored in a clean and sanitary fashion to prevent their being damage or contamination. Storage conditions must ensure that the facepiece and exhalation valve are not deformed.

Respirators that are defective shall be removed from service until repaired or replaced. All manufacturer storage instructions must be followed.

RESPIRATOR CLEANING PROCEDURES
Procedures:
A. Remove filters, cartridges, or canisters. Disassemble facepieces by removing speaking diaphragms, demand and pressure-demand valve assemblies, hoses, or any components recommended by the manufacturer. Discard or repair any defective parts.
B. Wash components in warm (110 degrees F. maximum) water with a mild detergent or with a cleaner recommended by the manufacturer. A stiff bristle (not wire) brush may be used to facilitate the removal of dirt.
C. Rinse components thoroughly in clean, warm preferably running water.
D. When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for 2 minutes in one of the following:
   a. Adding approximately 1 milliliter of laundry bleach to 1 liter of water at 110 deg. F or,
   b. Aqueous solution of iodine made by adding approximately 8 milliliters of tincture of iodine to one liter of water at 110 deg. F or,
   c. Other commercially available cleansers of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer.
E. Rinse thoroughly in clean, warm preferable running water. Drain. The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on facepieces may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.
F. Components should be hand-dried with a clean lint-free cloth or air-dried.
G. Reassemble facepiece, replacing filters, cartridges, and canisters where necessary
H. Test the respirator to ensure that all components work properly.

TRAINING AND INFORMATION
Annual refresher training will be required for each employee in the Respirator Protection Program. The training will result in each employee being able to demonstrate knowledge of:
1. Why respirator use is necessary;
2. How improper fit, usage, or maintenance can compromise the protective effect;
3. Limitations and capabilities of the respirator;
4. Effective actions in the event of emergency or respirator malfunction situation;
5. How to inspect, put on, remove, use, and check seals of respirator;
6. Medical signs and symptoms which might limit or prevent effective use of respirator;
7. Proper procedures for maintenance and storage of respirator;
8. General requirements of this program

WHEN RESPIRATORS ARE NOT REQUIRED UNDER THE STANDARD
Respirators are an effective method of protection against designated hazards when properly selected and worn. A respirator may be used 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 respirators are provided for voluntary use or if an employee brings his/her own respirator, certain precautions need to be taken to be sure that the respirator itself does not present a hazard by doing the following:
• Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
• Choose respirators certified for use to protect against the contaminant of concern.
• 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.
• Keep track of your respirator so that you do not mistakenly use someone else’s respirator.

RECORDKEEPING
All records of medical evaluations must be retained and made available per 29 CFR 1920.1020. All records of fit tests must be established and retained until the next fit test. A written copy of the current program must be retained.

REFERENCES
The following documents are resources:
• 29 CFR 1910.134, Respiratory Protection, and Appendices
• Chapter Comm. 32, Public Employee Safety and Health
• 42 CFR 84, Approval of Respiratory Protective Devices
• ANSI Z88.2, Respiratory Protection,
• NIOSH Guide to the Selection and Use of Particulate Respirators Certified Under 42 CFR 84 (4/23/96)

RECORD OF PROGRAM UPDATES
• 11/2010
• 9/2011
• 4/2016