Western Michigan University

Respiratory Protection Policy

I. Purpose:
The purpose of Western Michigan University’s Respiratory Protection Safety Program is to enhance the protection of employee health by ensuring proper training, selecting and fitting of respirators, in accordance with the provisions of Michigan’s Occupational Safety and Health Administration (MIOSHA) General Industry Health Standards, Part 451, Respiratory Protection as amended February 8, 2007.

To the greatest extent possible, breathing air quality shall be controlled through the use of proper engineering, work practice, and administrative controls. When effective controls are not feasible or while they are being implemented, appropriate respiratory protection shall be used.

Training, Fit Testing, Medical Evaluations and Respirators and canisters are supplied to the employees that fall under this program at no cost to them.

II. Scope:
The Respiratory Protection Program is designed for full time, part time, temporary and student employees who use respirators. These include, but are not limited to: half-masks, full face piece respirators, powered-air-purifying respirators (PAPR), airline respirators, self-contained breathing apparatus (SCBA), and filtering face pieces (except on a voluntary basis).

III. Definitions
A. Respirator: A device that protects employees from inhaling harmful substances. These substances can be in the form of airborne vapors, gases, dust, fogs, fumes, mists, smokes, or sprays. Some respirators also ensure that workers do not breathe air that contains dangerously low levels of oxygen.
   1. 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.
   2. Powered Air-Purifying Respirator (PAPR): An air-purifying respirator is one that uses a blower to force the ambient air through air-purifying elements to the inlet covering.
   3. Supplied Air Respirator (SAR): An atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user. Also called an airline respirator.
B. Qualitative Fit Test (QLFT): A pass/fail test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

IV. Procedures/Requirements:
A. **Selection of Respiratory Equipment:**

1. Respirators shall be selected on the basis of the hazards to which the employee is exposed. The respirator shall be adequate to protect the health of the employee and to ensure compliance with all MIOSHA requirements. Respirator selection shall include consideration of the following factors:
   a. The type of respiratory hazard, including physical and chemical properties of the contaminant and its effect on humans.
   b. The concentration of the contaminant.
   c. The duration of exposure and the period of time respiratory protection is needed.
   d. The activities of the workers during exposure and respirator use.
   e. The characteristics, capabilities, and limitations of the various types of respirators.
   f. The protection factor assigned to the respirator.
   g. Respirators must be NIOSH certified.

2. All respirators and particulate filters used at Western Michigan University (WMU) shall be certified by the National Institute for Occupational Safety and Health (NIOSH) and shall be used in compliance with the conditions of its certification.
   a. Employees using particulate filters shall change the cartridges on their respirators when they first begin to experience difficulty breathing (i.e. breathing resistance).

3. For protection against gases and vapors, the air-purifying respirator shall be equipped with an end-of-service-life indicator (ESLI) certified by NIOSH for the contaminant. If there is no ESLI appropriate for the conditions, a change schedule for canisters and cartridges will be formulated based on objective information or data that will ensure that canisters and cartridges are changed before the end of their service life.

4. For supplied-air respirators, only Grade D breathing air shall be used.
<table>
<thead>
<tr>
<th>Type</th>
<th>Contaminant</th>
<th>Department, Process</th>
<th>Frequency of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSA 200LS Half Face</td>
<td>Particulates, Paint, Pesticides</td>
<td>Maintenance and Landscape, painting, grinding, sanding.</td>
<td>Once per week for Painters. Rarely for all others.</td>
</tr>
<tr>
<td>3M 6100 Half Face</td>
<td>Particulates, Paint, Pesticides</td>
<td>Maintenance and Landscape, painting, grinding, sanding.</td>
<td>Once per week for Painters. Rarely for all others.</td>
</tr>
<tr>
<td>North 7700 Half Face</td>
<td>Particulates, Paint, Pesticides</td>
<td>Maintenance and Landscape, painting, grinding, sanding.</td>
<td>Once per week for Painters. Rarely for all others.</td>
</tr>
<tr>
<td>3M 7800 Full Face</td>
<td>Tear Gas</td>
<td>Public Safety, Riot/Crowd Control</td>
<td>Once or twice per year</td>
</tr>
<tr>
<td>MSA 4100 Full Face SCBA</td>
<td>Ammonia</td>
<td>EHS, Emergency response</td>
<td>Rarely</td>
</tr>
<tr>
<td>3M 1860 N95 Filtering Mask</td>
<td>Airborne viruses or bacteria</td>
<td>Sindecuse Health Center, when working with a seriously ill patient or for use during a pandemic</td>
<td>Rarely</td>
</tr>
<tr>
<td>3M 1870 N95 Filtering Mask</td>
<td>Airborne viruses or bacteria</td>
<td>Sindecuse Health Center, when working with a seriously ill patient or for use during a pandemic</td>
<td>Rarely</td>
</tr>
<tr>
<td>Kimberly Clark 46727 N95 Filtering Mask</td>
<td>Airborne viruses or bacteria</td>
<td>Sindecuse Health Center, when working with a seriously ill patient or for use during a pandemic</td>
<td>Rarely</td>
</tr>
<tr>
<td>3M 8512 N95 Filtering Mask</td>
<td>Metal particles</td>
<td>Maintenance, Welding, brazing, metal pouring, cutting</td>
<td>Rarely</td>
</tr>
</tbody>
</table>
B. **Respirator Assignment and Use:**
   1. All WMU employees must first receive a current medical evaluation, proper training, and fit testing before wearing or being assigned to wear a respirator.
   2. Employees shall not wear a tight-fitting facepiece respirator whenever any condition exists which could affect the seal of the respirator or valve function (e.g., beards, sideburns, facial hair, missing dentures, skull caps, personal protective equipment, or eyeglass temple pieces that projects under the respirator.)
   3. Special spectacle kits or other devices shall be made available for individuals who wear corrective lenses, and who also must use a tight-fitting full-facepiece respirator.

C. **Where Respirator Use is not Required:**
   1. An employee may request a respirator or be permitted to use their own respirator, where a respirator is not required, if Environmental Health and Safety (EHS) and the supervisor determines that such use in itself will not create a hazard.
   2. If EHS permits an employee to wear a respirator, other than a filtering face piece respirator, where not required, the employee will be included in all elements of the Respiratory Protection Policy.
   3. Voluntary use of a filtering face piece respirator (dust masks).
      a. Employees may be fitted with filtering face pieces with N95, N99, or N100 capabilities.
      b. Employees will not be required to offer proof of medical ability to wear a respirator.
      c. Employees must be provided with a written copy of the “Instructions for employees who request voluntary use of a respirator (Appendix D of this document)
      d. The department must send a signed copy to EHS documenting the employee has received and read Appendix D on the voluntary use of a respirator.

D. **Training and Information:**
   1. Training is conducted by EHS.
   2. Employees will be trained such that they can demonstrate knowledge of at least:
      a. Why the respirator is necessary and how improper fit, use, or maintenance can compromise its protective effect.
      b. Proper selection and use.
      c. Limitations and capabilities of the respirator.
      d. Effective use in emergency situations or if it malfunctions.
      e. How to inspect, put on and remove, use and how to perform a user seal check.
      f. Proper maintenance and storage.
      g. Recognition of medical signs and symptoms that may limit or prevent effective use.
h. The general requirements of the MIOSHA standard.
i. The following documents are available for employee review and copies are made available during training:
   1) MIOSHA Part 451 Respirator Protection
   2) Manufacturer’s manuals/instructions
   3) Respirator Cleaning Procedures
   4) Appendix D (for Voluntary Users)

3. Training shall be provided prior to use.
4. Retraining is required annually, and when:
   a. Changes in the workplace or type of respirator render previous training obsolete.
   b. Inadequacies are found in the employee’s knowledge or use.
   c. Other situations arise in which retraining appears necessary.

E. Program Evaluation:
1. Regular evaluations of the workplace are conducted as necessary to ensure that the provisions of the current written program are being effectively implemented and that it continues to be effective.
2. Employees are consulted during workplace evaluations and during annual training to assess their views on program effectiveness and to identify and correct any problems.
3. EHS will review respirator fit during annual fit testing.
4. Hazards are also reviewed to ensure appropriate respirator selection.
5. Inspections of respirators are conducted by the employee to ensure proper respirator maintenance.

F. Recordkeeping:
1. Records of medical evaluations shall be retained in the individual’s medical record at Sindecuse Health Center and made available in accordance with MIOSHA R325.3451-3476, “Employee Medical Records and Trade Secrets”.
   This program can be found at https://www.wmich.edu/sites/default/files/attachments/u218/2015/respiratory-policy.pdf
2. Training and fit test records can be found in the EHS office.

G. Medical Evaluations:
1. All employees, who will be expected to wear a respirator, either routinely or in an emergency situation, shall receive a medical evaluation at no cost to them. The licensed health care professional at the Sindecuse Health Center will determine whether the employee is physically able to wear a respirator. The medical evaluation shall be performed before the employee is initially fit-tested or required to use a respirator. Additional medical evaluations shall be provided if:
   a. An employee reports medical signs or symptoms that are related to their ability to use a respirator; or
b. The physician, health care professional, supervisor, or EHS personnel determines an employee needs to be reevaluated; or;

c. Information from the Respiratory Protection Program, including observations made during fit testing and program evaluation indicates a need for employee reevaluation; or

d. A change occurs in workplace conditions (e.g., physical work effort, protective clothing use, and temperature) that may result in a substantial increase in the physiological burden placed on an employee.

2. The medical examinations shall consist of using a medical questionnaire and/or a medical examination and/or spirometry.

3. Follow-up examinations shall be provided to employees whose initial medical examination demonstrates the need for a follow-up medical examination or as requested by the health care provider at Sindecuse Health Center.

4. The medical questionnaire and examinations shall be administered confidentially during the employee’s normal working hours or at a time and place convenient to the employee and in a manner that ensures the employee understands its content.

5. Each employee will be given the opportunity to discuss the questionnaire and the examination results with the physician or licensed health care professional.

6. Employees must complete a medical questionnaire, submit it to Sindecuse Health Center for evaluation, and attend the follow-up medical evaluation (if applicable) before being allowed to participate in training, fit testing, or being allowed to wear a respirator.

H. Respirator Fit Testing:

1. EHS shall ensure that employees using a tight-fitting facepiece respirator pass an appropriate qualitative fit test (QLFT), for each type of respirator he/she may be required to use.

2. Respirator fit testing shall be conducted prior to the time of initial use of a tight-fitting facepiece respirator, whenever a different respirator facepiece (size, style, model, or make) is used, and at least annually thereafter for as long as the employee may be required to wear a respirator. Additional fit testing shall be conducted whenever the employee reports or observations indicate changes in the employee’s physical condition (e.g., facial scarring, dental changes, cosmetic surgery, or change in body weight) that could affect respirator fit.

3. If, after passing a QLFT, the employee notifies EHS, their supervisor or a health care provider at Sindecuse Health Center that the respirator fit is unacceptable, the employee shall have the opportunity to select a different respirator facepiece and to be retested.
VII. Responsibilities:
A. Supervisor:
1. Arrange initial respirator physical through Sindecuse Health Center. The respirator physical will ensure that the employee is physically capable of wearing a respirator during work activities.
2. Contact EHS to obtain the Medical Questionnaire for initial respirator physical.
3. Contact EHS to determine type of respirator needed.
4. Arrange for purchase and payment of respirator physical, respirator, replacement parts, respirator cartridges, filters, and repairs.
5. Establish a clean, enclosed, storage location for the employee to store their respirator when not in use.
6. Ensure employees under their supervision are using the required respirators appropriately.
7. Ensure that respirators that require repair be removed from service until the repair has been made or replaced, as needed.
8. Ensure that employees have a location to clean and sanitize their respirators as often as necessary, or immediately following an emergency situation.

B. Employee:
1. Wear the respiratory protection equipment provided, according to the instructions and training received.
2. Wear only the respirator trained upon and properly fitted to use.
3. Inspect, store, and maintain the respiratory protection equipment provided, according to the instructions and training received.
4. Report any change in health to the health care provider at the Sindecuse Health Center.
5. Report to EHS if a change in physical characteristics alter the fit of the respirator.
6. Perform positive or negative pressure checks each time the respirator is put on, if using a tight-fitting respirator.
7. Inform the supervisors whenever there is a concern about the atmospheric conditions within a work area, so that the area can be evaluated, and respirators prescribed as necessary.
8. Inform the supervisor whenever a need for repair or replacement of issued respiratory protective devices is recognized.
9. Eliminate conditions, such as beard growth, long side burns or large mustaches, which could prevent a good facepiece-to-face seal or could interfere with the proper function of the respirator.
10. Ensure their respirator is clean and sanitized as needed or following an emergency situation.

C. EHS:
1. Serve as administrator of this program. Update as necessary to reflect those changes in the workplace conditions that affect respirator use.
2. Determine what (if any) respiratory protection devices are necessary to perform each work activity conducted by their employees.
3. Provide initial and annual training and fit-testing.
4. Provide a selection of sample respirators in different models and sizes so that the respirator is acceptable to and correctly fits the user.
5. Maintain documentation for employee who successfully completes the training to indicate that they have been fit tested and trained.
6. Retain fit test records until the next fit test is administered.
7. Conduct evaluations of the workplace as necessary to ensure the provisions of this Respiratory Protection Program are being effectively implemented and that the program continues to be effective.

D. Sindecuse Health Center:
1. Provide an initial medical evaluation to determine the employee's ability to use a respirator, before the employee is fit tested or required to use the respirator in the workplace.
2. Review the individual's completed Medical Questionnaire annually to determine if employee needs to be seen for an examination.
3. Provide a written recommendation regarding the employee's ability to use the respirator to EHS.

12/3/2018