CENTRAL MICHIGAN UNIVERSITY
RESPIRATORY PROTECTION PROGRAM

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I. **INTRODUCTION**

The Respiratory Protection Plan has been written in accordance with the Michigan Occupational Safety and Health Administration’s (MIOSHA) Part 451 as adopted by reference from the Occupational Safety and Health Administration’s 29 Code of Federal Regulations (CFR) 1910.134. The goal of this written plan is to implement procedures to protect the employees of Central Michigan University from harmful airborne contaminants through the use of a variety of types of personal protective equipment (PPE), such as masks and respirators. In addition, exposure to health risks will be reduced through training in hazard recognition.

II. **SCOPE**

These rules and procedures apply to all University employees.

III. **PROGRAM ADMINISTRATION**

The Environmental Health & Safety office is responsible for the overall administration of the University’s Respiratory Protection Plan. However, for implementation, it is the responsibility of the Dean, Chairperson, Department Director, Laboratory Manager/Supervisor or their Designee to provide full support and cooperation in carrying out their assigned functions in the program.

IV. **MANAGEMENT RESPONSIBILITIES**

Respirators shall be provided by the University when such equipment is necessary to protect the health of the employee or students with respiratory symptoms while working in laboratories with chemicals (these students must first report to Student Disability Services – See Appendix I). The University shall provide respirators that are applicable and suitable for the purpose intended. This written plan discusses negative-pressure tight fitting Air Purifying Respirators (APR’s) and filtering face pieces (dust masks) as they are the type of respirators being used by CMU employees.

Employees shall have the responsibility for wearing a respirator in atmospheres requiring their use. Failure to do so may lead to disciplinary action.

V. **RESPIRATOR SELECTION**

A. A respirator shall be used only after feasible engineering controls and work practices have been instituted in order to minimize employee exposure to hazardous substances.

B. Only National Institute for Occupational Safety and Health (NIOSH) certified respirators shall be assigned.
C. The selection of a proper respirator for a given situation shall take into consideration the following factors:

1. Nature of the hazard, including the chemical and physical properties of the air contaminant, actual concentration of the toxic material, and the established exposure limits of the toxic material if available.
2. Characteristics of the hazardous operation.
3. The frequency of respirator use.
4. The respirator characteristics, capabilities and limitations.
5. A Hazard Evaluation Form – (Respirator User template can be found in Appendix C and is to be filled out for each employee whose job task(s) require the use of a respirator).

D. Respirators and/or their canisters/cartridges shall be equipped with an end-of-service-life indicator (ESLI) certified by NIOSH for the contaminant, or, if there is not an ESLI appropriate for conditions, Environmental Health & Safety, in cooperation with supervisors shall implement a change schedule for canisters and cartridges for the particular contaminant encountered, taking into account the volatility of the chemical, the cartridge use/nonuse patterns, and desorption data, if available, to ensure that cartridges are changed before the end of their service life. See Appendix B (8).

E. The user shall be instructed and trained annually in the proper use of respirators, cartridge/canister selection, and their limitations. Cartridges/canisters are color coded according to the atmospheric contaminant. Appendix F contains Table I-1, 29 CFR 1910.134 which illustrates the colors assigned to the atmospheric contaminant.

F. Respirators shall be stored in a convenient, clean and sanitary location so as to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture and damaging chemicals; and they should be packed or stored to prevent deformation of the facepiece and exhalation valve.

G. Employees will not be assigned to tasks requiring use of respirators unless they have received a physical examination by a licensed physician, which may include a pulmonary function test, EKG, and chest X-ray if determined by the physician. The Central Health Improvement Program (CHIP), working with Central Occupational Medicine Program (COMP), will arrange for a physician who shall determine the physical and respiratory conditions of the user. The respirator user’s medical status will be reviewed on a two-year basis or when the user’s physical condition changes significantly, or as necessary per the physician’s recommendations.

VI. RESPIRATOR FIT TESTING

The University shall ensure that the respirator issued to the employee exhibits the least possible leakage and that the respirator is fitted properly. For each employee wearing
negative pressure respirators, the University shall perform qualitative face fit tests (only when fit factors of 100 or less must be achieved) at the time of initial fitting; whenever a different respirator facepiece is used; and at least annually thereafter. Additional fit tests will be conducted if the employee reports, or if visual observations are made of a change in physical condition that could affect respirator fit.

A. APR’s and filtering face pieces (dust masks) - The University shall perform qualitative fit test protocols in accordance with the specific standard listed in Appendix A to Section 1910.134. (See appendix H)

B. Respiratory difficulty during tests - If an employee exhibits difficulty in breathing during the tests, he or she shall be referred to a physician trained in respiratory diseases or pulmonary medicine to determine whether the employee can wear a respirator while performing his or her duties.

C. Respirator use determination - The employee shall be given the opportunity to wear the assigned respirator for one week. If the respirator does not provide a satisfactory fit during actual use, the employee may request another fit test which shall be performed immediately, or request a different respirator.

D. Filter replacement - Filters used for qualitative or quantitative fit testing shall be replaced whenever increased breathing resistance is encountered, or when the test agent has altered the integrity of the filter media. Organic vapor cartridges/canisters shall be replaced if there is any indication of breakthrough by the test agent.

E. Qualitative fit test, re-test requirements - Qualitative fit testing shall be repeated immediately if the employee should experience:

1. Weight change of 20 pounds or more.
2. Significant facial scarring in the area of the face piece seal.

F. Employees must be clean shaven in order to receive a fit test. Employees with noticeable beard growth will be asked to shave before receiving a fit test. Facial hair must not hinder the seal of the facepiece. A neatly trimmed mustache is permissible.

G. Before each use of a negative pressure respirator, the employee shall perform both a negative pressure and positive pressure user seal-check while wearing the respirator before entering a contaminated atmosphere.

H. Respirator Training - For safe use of any respirator, it is essential that employees be properly instructed in its selection, use, maintenance, and limitations. Both supervisors and employees shall be so instructed by the University’s EH&S-Safety Administrator, Manager of Lab Safety, Environmental Administrator, or
other designee. Training shall provide employees the opportunity to handle the respirator, have it fitted properly, test its face-piece seal, and wear it in normal air for a five minute familiarity period, and, finally, to wear it in a test atmosphere. They will also be instructed on how to recognize medical signs and symptoms that may limit or prevent the effective use of the respirator.

I. Fit instructions - Every respirator wearer shall receive fitting instructions including demonstrations and practice in how the respirator should be worn, how to adjust it, and how to determine if it fits properly. Respirators shall not be worn when conditions prevent a good face seal. Such conditions may be a growth of beard, sideburns, a skull cap that projects under the face piece, or temple pieces on glasses. Also, the absence of one or both dentures can seriously affect the fit of a face piece.

J. Fit Evaluation (wearer) - The face piece fit shall be checked by the wearer each time he/she puts on the respirator. This will be done in accordance with the manufacturer’s face piece fitting instructions.

K. Fit Evaluation - Periodic checks of employees while wearing respirators will be done by the Supervisor to assure proper protection. This will be done in accordance with the manufacturer’s face piece fitting instructions.

L. Corrective vision requirements (full-face respirators) - Full-face respirators having provisions for optical inserts will be reviewed for use by the University’s EH&S-Safety Administrator, Manager of Lab Safety, Environmental Administrator, or other designee. These inserts, when used, will be used according to the manufacturer’s specifications. When employees must wear optical inserts as part of the face piece, the face piece and lenses shall be fitted by qualified individuals to provide good vision, comfort, and a gas-tight seal. The University will provide corrective lenses for respirators based on optometry recommendations from an optometrist.

1. Conventional eye glasses - Conventional eye glasses will not be used with full-face respirators. A proper seal cannot be established if the temple bars of eye glasses extend through the sealing edge of the full face piece.

2. If corrective spectacles or goggles are required, they shall be worn so as not to affect the fit of the face piece. Proper selection of equipment will minimize or avoid this problem.

VII: RESPIRATOR INSPECTION

A. Routine Use Respirators - All routine use respirators shall be inspected before and after each use and during cleaning. The respirator manufacturer’s inspection criteria will be used as the basis for the inspection. Routinely used respirators shall be
cleaned and disinfected as frequently as necessary by the wearer to ensure that proper protection is provided for the wearer. If worn or deteriorated parts are detected, the entire respirator shall be replaced. Inspection of the respirator should include:

- A check of respirator function, tightness of connections, and the condition of the various parts including, but not limited to, the facepiece, head straps, valves, cartridges or filters; and

- A check of elastomeric parts for pliability and signs of deterioration.

Respirators that fail an inspection or are found to be defective will be removed from service and discarded.

VIII. MEDICAL EXAMINATIONS

A. No employee shall be assigned to tasks requiring the use of respirators if, based upon his or her most recent physical examination, an examining physician determines that the employee will be unable to function normally wearing a respirator, or that the safety or health of the employee and other employees will be impaired by the use of a respirator.

B. All medical examinations and procedures shall be performed by or under the supervision of a licensed physician and shall be provided without cost to the employee.

C. Before an employee is assigned to a task requiring the use of a respirator, a preplacement medical examination shall be provided by the University. The Medical Examination Request form found in Appendix D should be filled out by the supervisor with assistance from EH&S if necessary.

D. The examining physician shall provide to CHIP/EH&S a signed written opinion containing the respiratory protection recommendations if any. The physician’s opinion shall include:

1. The physician’s opinion as to whether the employee has any detected medical conditions that would place the employee at an increased risk of material health impairment from exposure to harmful airborne matter or from using a respirator.

2. Any recommended limitations on the employee or upon the use of personal protective equipment such as clothing or respirators.

3. A statement that the employee has been informed by the physician of the
results of the medical examination.

4. The physician’s opinion shall not include specific findings or diagnosis unrelated to occupational exposure to harmful airborne matter or to use of a respirator.

5. If the employee or employee's representative requests a copy of the physician’s written opinion, the University will provide a copy within 30 days of its receipt.

E. Recordkeeping

The department and the Central Health Improvement Program (CHIP) shall establish and maintain an accurate record for each employee subject to the required medical examinations. The record shall be maintained for the duration of employment plus thirty (30) years. The record shall include the following items:

1. The name and employee ID number of the employee.
2. Physician’s written opinions.
3. Any employee medical complaints related to potential exposure.

IX. WORK AREA SURVEILLANCE

The work area of the respirator wearer shall be monitored periodically by the EH&S office for respiratory hazards. The use of respirators shall be monitored to ensure that the correct respirators are properly worn and the respirators are in good working order.

X. EVALUATION OF RESPIRATORY PROTECTION PROGRAM

The effectiveness of the University’s respirator protection program shall be evaluated by the EH&S office annually. The evaluation shall include but not be limited to:

1. Wearers acceptance of respirator and program.
2. Assignment and use of respirators.
3. Maintenance and storage of respirators.
4. Effectiveness of respirator protection.
SECTION XI

APPENDICES
THE RESPIRATOR

The chemical cartridge respirator has a cartridge that contains an air purifying material to remove harmful dust, gases and vapors. A pre-filter removes airborne particulates. The filter affords protection against light concentrations (10 to 1000 ppm, depending on the contaminant and equipment) of specific chemicals.

LIMITATIONS

1. APR’s and filtering face pieces (dust masks) do not supply oxygen, so they must NEVER be worn in oxygen deficient atmospheres. An example would be cleaning inside a confined space that has been tested and found to be oxygen deficient. Conditions required for the use of APR’s include:
   a) Atmospheres with sufficient oxygen (19.5% and 23.5%)
   b) Non-Immediately Dangerous to Life or Health (IDLH)
   c) Chemical concentration is known
   d) Canister/cartridge must be available to protect against the hazard

2. APR’s and filtering face pieces must NOT be used if the respirator wearer experiences symptoms such as, but not limited to, nausea, dizziness, or difficulty breathing. Warnings such as these alert the individual that the sorbent may be saturated, and the contaminant is passing through the cartridge or canister, and the individual is therefore breathing contaminated air.

3. APR’s and filtering face pieces must NOT be used in atmospheres immediately dangerous to life or health, except for escape. Such a situation would be a large buildup of a hazardous chemical inside a confined area. The vapor concentration, due to the confinement, is more than the air-purifying respirator is designed to handle. In general, the respirator can be used to protect up to 10 times a Permissible Exposure Limit (PEL). The PEL is available for many chemicals, and can be obtained by checking the Safety Data Sheets (SDS) for the chemical(s) being used by the employee.

4. They provide protection only from specific hazards, such as dusts, gases, or vapors.
USE OF THE RESPIRATOR

1) Each newly assigned respirator should be checked by the wearer prior to its initial use.

2) Check the respirator at each cartridge to see that valves or gaskets are in place and in good condition. It is very important not to over tighten as this disrupts the gasket and will adversely affect use.

3) Make sure the respirator is clean. The respirator should be cleaned according to the manufacturer’s recommendations.

4) Respirator inspection shall include a check of the tightness of connections and the condition of the facepiece, headbands, valves, connecting tube, and canisters. Rubber or elastomer parts shall be inspected for pliability and signs of deterioration. Stretching and manipulating rubber or elastomer parts with a massaging action will keep them pliable and flexible and prevent them from taking a set position during storage.

5) When not being used, keep the respirator in a sealable container or Ziploc bag to keep it clean. Remove as much air from the Ziploc bag as possible before sealing. Store in a clean dry place away from sunlight, other chemicals, and extreme hot or cold temperatures.

6) Fit respirator on face properly. Adjust neck and headbands so respirator is snug enough to ensure a tight but comfortable seal. Readjustment is usually needed each time the respirator is used.

7) Perform a positive-negative pressure test by plugging exhale and inhale valve(s) with your hand to be sure of a proper fit.

8) The cartridge/canister change out schedule will be pre-determined during the hazard evaluation conducted by EH&S prior to fit-testing.

9) Respirator parts will deteriorate with time. If, on a daily inspection, parts are missing or appear faulty, replace the respirator with a new one.

10) Use only cartridges or canisters designed for the brand of respirator issued.

11) Information is supplied by the manufacturer of the respirator and filter. It is important that this be read.

12) If an employee requests to use a respirator where a respirator is not required, CMU must establish and implement those elements of this respiratory protection program necessary to ensure that any employee using a respirator voluntarily is medically able to use that respirator, and that using the respirator will not in itself create a hazard. Therefore, voluntary users need to be medically evaluated for respirator use, trained, and fit tested. Environmental
Health & Safety will conduct the training and fit testing once medical clearance is received. In addition, the employee must be provided the information contained in Appendix D of MIOSHA Part 451. Respiratory Protection, *Information for Employees Using Respirators When Not Required Under the Standard*. 
APPENDIX C
HAZARD EVALUATION FORM – RESPIRATOR USER

EMPLOYEE NAME:

EMPLOYEE ID:

PHONE:

SUPERVISOR:

DEPARTMENT:

EMPLOYEE JOB TITLE:

WORK LOCATION; BLDG; ROOM

VOLUNTARY USE: ☐

RESPIRATOR TYPE AND WEIGHT (Check all that apply):

**AIR PURIFYING**

☐ Half-Mask < 5 lbs
☐ Full-Face Mask < 5 lbs
☐ Emergency use
☐ PAPR < 10 lbs

**SUPPLIED AIR**

☐ Airline (Continuous Flow) < 5 lbs
☐ Airline (Pressure Demand) <15 lbs
☐ SCBA 25 lbs

Other (describe):
Respirator information (manufacturer, size, etc.):

Respirator cartridge change out schedule:

<table>
<thead>
<tr>
<th>DURATION AND FREQUENCY OF RESPIRATOR USE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full shift (4-8 hours/day)</td>
</tr>
<tr>
<td>High use (daily or weekly)</td>
</tr>
<tr>
<td>Moderate use (1-4 hours/day)</td>
</tr>
<tr>
<td>Moderate use (monthly)</td>
</tr>
<tr>
<td>Low use (&lt; 1 hour/day)</td>
</tr>
<tr>
<td>Infrequent use (less than monthly)</td>
</tr>
</tbody>
</table>

TYPICAL WORK ACTIVITIES AND HAZARDS

- Routine laboratory or shop operations
- Potential exposure to reduced oxygen environments

EXPECTED PHYSICAL WORK EFFORT:

- Heavy work
- Moderate work
- Light work

ADDITIONAL PROTECTIVE CLOTHING AND EQUIPMENT TO BE WORN:

<table>
<thead>
<tr>
<th>Eye and Face</th>
<th>Head</th>
<th>Foot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety glasses</td>
<td>Hardhat</td>
<td>Safety shoes (protective toe)</td>
</tr>
<tr>
<td>Goggles</td>
<td></td>
<td>Metatarsal</td>
</tr>
<tr>
<td>Face shield</td>
<td></td>
<td>Rubber boots (protective toe)</td>
</tr>
<tr>
<td>Filter lenses (shade #____)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hand</th>
<th>Clothing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gloves, leather</td>
<td>Protective suit (e.g., Tyvek®)</td>
</tr>
<tr>
<td>Gloves, nitrile</td>
<td>Lab coat</td>
</tr>
<tr>
<td>Gloves, other</td>
<td>Apron</td>
</tr>
<tr>
<td></td>
<td>Clothing, other</td>
</tr>
</tbody>
</table>

TEMPERATURE AND HUMIDITY EXTREMES THAT MAY BE ENCOUNTERED:

- Outside work (summer)
- Outside work (winter)
- Routine laboratory or shop environment
HAZARDOUS MATERIAL(S) Include contaminant chemical state and physical form (e.g., gas, vapor, biological):

DESCRIPTION OF WORK ACTIVITIES:

HAZARD CONTROLS:

MONITORING NEEDED:

If no, list the justification:

RECOMMENDATIONS (Include monitoring results, any modifications to controls, and status of on-going work):

EH&S Signature: __________________________ Date: __________________
Employee Name ________________________________________________________________

Employee No. __________________________________________________________________

Department ____________________________________________________________________

Job Classification _______________________________________________________________

The above named employee of Central Michigan University has been assigned to work requiring the use of a respirator. It is requested the employee be given an initial/annual medical examination which shall include the following:

☐ 1. A complete physical examination of all systems with emphasis on the respiratory system, the cardiovascular system and digestive tract.

☐ 2. A chest roentgenogram (posterior - anterior 14 x 17 inches)

☐ 3. Pulmonary function tests to include forced vital capacity and forced expiratory volume at 1 second.

☐ 4. Any additional tests deemed appropriate by the examining physician.

The following information should be taken into consideration when evaluating the employee’s physical ability to function normally wearing a respirator.

1. The employee’s duties related to the anticipated exposure are: _______________________
____________________________________________________________________________
____________________________________________________________________________

2. The employee’s anticipated exposure level is:_____________________________________
____________________________________________________________________________

3. Type of respirator to be used:___________________________________________________
____________________________________________________________________________

4. Information from previous medical examinations:_______________________________
____________________________________________________________________________
____________________________________________________________________________

It is requested that the examining physician provide to CHIP/EH&S a signed written opinion containing the respiratory recommendations.

Name of person supplying above information _____________________________ Date __________
Animal Handler Respirator Exam Form
CMU

Name___________________________________ Date: _________

Based on Animal Handlers Health Questionnaire, this person is:
□ May work with animals without restrictions
□ Medically approved for work with animals and may use all respirators with the exception of SCBA and is subject to fit testing.

Based on history, physical exam and further evaluation as appropriate this person is:
□ Medically approved for work with animals and may use all respirators including SCBA and is subject to fit testing.
□ Medically approved to work with animals and may use only the following types of respirators and is subject to fit testing
- Dust Mask/ N95
- Negative Pressure
- Powered Air Purifying
- Supplied Air
- Self Contained Breathing Apparatus (SCBA)
□ Not Qualified to work with animals
□ Need to update tetanus- if not done within 10 years
□ Please contact COMP at 989-779-5600 to set up an exam

Medical History of:
□ Allergic Rhinitis
□ Asthma

Recommended time period for next exam

( ) Annual   ( ) ________ ( ) Must fill out annual questionnaire

If there is a change in health status or level of animal exposure, the employee should update their information by submitting a new annual update form. Women who are pregnant or plan to become pregnant should contact COMP immediately (989-779-5600). Employee has been provided a copy of this written recommendation

( ) Yes ( ) No
Examing Physician __________________ Signature________________________ Date __________
## CENTRAL MICHIGAN UNIVERSITY
## RESPIRATORY PROTECTION PROGRAM

### TABLE I-1 FROM 29 CFR 1910.134

<table>
<thead>
<tr>
<th>Atmospheric contaminants</th>
<th>Colors assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acid gases</td>
<td>White</td>
</tr>
<tr>
<td>Hydrocyanic acid gas</td>
<td>White with ½ inch green stripe completely around the canister near the bottom.</td>
</tr>
<tr>
<td>Chlorine gas</td>
<td>White with ½ inch yellow stripe completely around the canister near the bottom.</td>
</tr>
<tr>
<td>Organic vapors</td>
<td>Black.</td>
</tr>
<tr>
<td>Ammonia gas</td>
<td>Green.</td>
</tr>
<tr>
<td>Acid gases and ammonia gas</td>
<td>Green with ½ inch white stripe completely around the canister near the bottom.</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>Blue.</td>
</tr>
<tr>
<td>Acid gases and organic vapors</td>
<td>Yellow.</td>
</tr>
<tr>
<td>Hydrocyanic acid gas and chloropicrin vapor</td>
<td>Yellow with ½ inch blue stripe completely around the canister near the bottom.</td>
</tr>
<tr>
<td>Acid gases, organic vapors, and ammonia gas</td>
<td>Brown.</td>
</tr>
<tr>
<td>Radioactive materials, asbestos and highly toxic materials excepting tritium and noble gases</td>
<td>Purple (magenta).</td>
</tr>
<tr>
<td>Particulates (dusts, fumes, mists, fogs or smokes) in combination with any of the gases or vapors</td>
<td>Canister color for contaminant as designated above with ½ inch gray stripe completely around the canister near the top.</td>
</tr>
</tbody>
</table>
Tasks requiring use of respirators:

♦ Under most spray painting applications
♦ Use of any products with manufacturer’s recommendation of SDS requiring use of respirators, unless accepted engineering controls are in place, (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials).
♦ When handling some pool treatment chemicals in the S.A.C. and Rose Center
♦ Cleaning pools using acid cleaners
♦ When cleaning mold
♦ When cleaning residence hall showers (depending on product used)
♦ When cleaning pigeon droppings in Kelly Shorts Stadium and other areas on campus
♦ Foust Hall Computer Room Floor Tile Removal & Replacement (non-asbestos)
♦ Hazardous Materials Response
♦ Animal Handlers
♦ Pesticide Applicators (When use of product requires the use of a respirator as recommended by the product manufacturer and SDS)
♦ CMU Police
♦ University students working with chemicals in laboratories (See Referral to Student Disability Services Form and University Health Services Respiratory Symptom Referral Form - Appendix I)
Appendix D: Information for Voluntary Users of Respirators

This appendix is provided for those individuals who are wearing respiratory protection, but are not required to do so under MIOSHA standards. Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirators can be used even when exposures are below exposure limits to provide an additional level of comfort and protection to workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker.

The following precautions need to be taken to be sure that the respirator itself does not present a hazard.

1. Read and follow all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirator’s limitations.
2. Make sure that the respirator in use is adequately protecting against the contaminant of concern. All respirators and cartridges/filters issued through EH&S are certified by NIOSH and are designed to protect against specific contaminants. Obtain all respiratory protection through EH&S to ensure that the proper equipment is used.
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 against gases, vapors, or very small solid particles of fumes or smoke. If the contaminant of concern differs from that which you were originally evaluated for, call EH&S to re-evaluate your protection.
4. Keep track of your respirator so that you do not mistakenly use someone else’s respirator.
Appendix I

Referral to Student Disability Services and University Health Services Respiratory Symptom Referral Forms
Referral to Student Disability Services:

1) University Student:
   a. Report to Laboratory Manager to ensure the process has been properly started
      i. Laboratory manager will provide the student with the following:
         1. MIOSHA questionnaire
            a. To be filled out before reporting to SDS or UHS
         2. Respiratory Exam Form
            a. Copies required to be kept at UHS, EHS, SDS and with Laboratory Manager
         3. Health Information Release Form
            a. Allows discussion of applicable health information between the following offices
               i. Student Disability Services
               ii. Environmental Health and Safety
               iii. Laboratory Manager
   b. Student will then report to Student Disability Services
      i. Student will fill out all SDS paperwork, then be referred to UHS
      ii. As soon as the issue is reported to SDS, the student will be removed from the lab until a course of action has been established.
   c. UHS will Diagnose the student, and provide a course of action
      i. Use the attached Respirator Exam Form if that is indicated
      ii. This only allows the four options that UHS has expressed a comfort level with, which include
         1. Assignment of half mask respirator
         2. Referral to Occupational health specialist
         3. No action (student does not need protection)
         4. Removal from lab
      iii. If student requires a respirator
         1. The student must return to Laboratory manager to get a unit and cartridges.
         2. Laboratory manager will then contact EHS to schedule a fit test for the unit
         3. Once the unit is properly fitted:
            a. EHS will notify Laboratory manager that the student is cleared to return to lab if the unit fit or
            b. EHS will notify Laboratory manager that the student is in need of a different unit for additional fit testing.
      iv. If the student requires referral
         1. The university will honor whatever the occupational medicine physician recommends
      v. If the student has no issue
         1. The student may return to lab without protection or further action
   d. Once the student is cleared, the student must continue to follow up with Student Disability Services as the office requests.
Respiratory Symptom Referral Form

Student Program: ___________________________________________ College of: ___________________________________________

Name ___________________________________________ Date ___________________________

The student in question has been given the following diagnosis:

____________________________________________________________________________________

Based on this medical diagnosis, the student in question is recommended to take the following course of action:

☐ The student should be fit tested and wear an air purifying half mask face piece respirator to attempt to return to the lab.
☐ The student should follow up with an occupational health specialist, that UHS will provide a referral for.
☐ Examination indicates that the student is not required to wear respiratory protection in order to safely return to the lab.
☐ The student is at risk even with respiratory protection, and should not return to lab.

Based on the review of the OSHA Respirator Health Questionnaire, history, physical exam and further evaluation as appropriate this person is:

☐ Medically approved for an air purifying half mask face piece respirator.
☐ Not medically approved for an air purifying half mask face piece respirator.
☐ Further medical information or evaluation is needed before qualifying for respirator use.
☐ Recommendation and suggested accommodations include:

____________________________________________________________________________________

____________________________________________________________________________________

Recommended time period for next exam ( ) should fill out annual respirator questionnaire if health or respirator type changes

( ) Annual ( ) 2 years ( ) 5 years ( ) ________________________________

Student has been provided a copy of this written recommendation. ( ) Yes ( ) No

Examining Physician ___________________________________________ Signature ___________________________________________

Date ___________________________
The Respiratory Protection Plan has been written to assure compliance with the Michigan Occupational Safety & Health Administration (MIOSHA) Part 451. Its goal is to implement procedures for protecting the employees of CMU from harmful airborne contaminants through the use of a variety of types of personal protective equipment (PPE), such as masks and respirators. In addition, exposure to health risks will be reduced through training in hazard recognition.

Responsibility: Responsibility for the development and maintenance of this program lies with the Environmental Health & Safety office. However, for implementation, it is the responsibility of the Department Manager, Director, Supervisor or their Designee and includes the following:

- Coordinating departmental compliance procedures.
- Assuring that proper Personal Protective Equipment (PPE) shall be made available as necessary to protect the health of the employee.
- Initiate any feasible engineering controls/work practices prior to implementing the use of PPE.

Respirator Selection: The following factors shall be considered for proper respirator selection:

- The nature of the hazard such as: chemical type, physical properties, concentration and exposure limits for that toxic material.
- Characteristics of the hazardous operation.
- Period of time the respirator will be used.
- Respirator characteristics, capabilities and limitations.

General Rules:

- All applicable employees shall be trained in the use, limitations and maintenance of all respirators they may be required to use.
- All respirators shall be stored in an accessible, clean and sanitary location.
- All routinely used respirators shall be inspected daily prior to use and during cleaning. Signs of wear and or deterioration of the respirator and its parts will not be repaired; instead, a new respirator will be issued to the employee. Emergency respirators shall be inspected at least once a month and after each use.
• No employee shall be assigned to work in an area requiring a respirator unless given the proper medical exams by a licensed physician. The user’s medical status will be reviewed on a two year basis or when the user’s conditions change significantly.

**Fit Testing & Evaluation:** The University shall ensure that respirators issued to employees exhibit the least possible leakage and are fitted properly.

• Qualitative fit test or re-testing is required annually or if the following conditions arise:
  1. Weight change of 20 lbs or more.
  2. Significant facial scarring in area of face piece seal.

• All employees shall be clean shaven when receiving a fit test and when wearing the respirator. Trimmed mustaches are allowed.

• Employees shall perform both a negative pressure and positive pressure face fit test each time they don a respirator.

• All employees shall be trained in the selection, maintenance, use, and limitations of any respirator they may be required to use; this includes issues of fit and wear.

• The face piece fit shall be checked by the wearer each time it is used in accordance with the manufacturer’s instructions.

• Environmental Health & Safety or employee’s department supervisor will periodically examine employees while using respirators to assure proper use and fit.

**Work Area Surveillance:** Work areas for respirator wearers shall be monitored periodically for respiratory hazards and to ensure that correct respirators are worn and in proper working order.

**The Written Plan:**

• In accordance with the MIOSHA Respiratory Protection Plan R.3502. (7), CMU has a written Respiratory Protection Plan and may be accessed at [www.emcich.edu/cmuehs](http://www.emcich.edu/cmuehs) under Written Plans.

Additional information can be requested from the Environmental Health & Safety office located in Smith Hall 103. Phone: 774-7398.