



COVID-19 Guidelines for Research Labs

SUMMARY OF MIOSHA EMERGENCY RULES

Important Note

MDHHS has issued COVID-19 Public Health Orders regarding requirements about face coverings for the public, gathering limitations, and other public health concerns.

Please visit Michigan.gov/Coronavirus for information on these public health orders.

The requirements in this presentation are required by MIOSHA Emergency Rules for COVID-19.

Overview

- ❑ Requirements for All Workplaces
 - ❑ Definitions
 - ❑ Exposure Determination
 - ❑ COVID-19 Preparedness & Response Plan
 - ❑ Basic Infection Control Measures
 - ❑ Health Surveillance
 - ❑ Workplace Controls
 - ❑ Person Protective Equipment
 - ❑ Employee Training
 - ❑ Recordkeeping
- ❑ “INDUSTRY” Requirements (or Resources)

MIOSHA Emergency Rules for COVID-19

REQUIREMENTS
FOR ALL
WORKPLACES

Definitions

- **Close Contact**: someone who was within 6ft of an infected person for at least 15 minutes starting from 2 days before illness onset (or for asymptomatic persons, 2 days prior to specimen collection) until the time the person is isolated
- **COVID-19**: coronavirus disease 2019, a severe acute respiratory disease characterized by symptoms including fever, cough, fatigue, and shortness of breath which may progress to pneumonia, multi-organ failure, & death
- **Known Cases of COVID-19**: person who have been confirmed through diagnostic testing to have COVID-19
- **SARS-CoV-2**: severe acute respiratory syndrome coronavirus 2, the virus which is the causative agent of COVID-19
- **Suspected Cases of COVID-19**: persons who have symptoms of COVID-19 but have not been confirmed through diagnostic testing or person who have had close contact with a person who has been confirmed through diagnostic testing

Exposure Determination

- ❑ Evaluate routine & reasonably anticipated tasks/procedures to determine actual OR reasonably anticipated exposures to SARS-CoV-2
- ❑ Categorize tasks/procedures into the following risk categories:
 - ❑ Lower Exposure Risk
 - ❑ Medium Exposure Risk
 - ❑ High Exposure Risk
 - ❑ Very High Exposure Risk
- ❑ Use OSHA guidance for additional resources for exposure determination
 - ❑ [Guidance on Preparing Workplaces for COVID-19](#)
 - ❑ [COVID-19 Hazard Recognition](#)

**Occupational Risk Pyramid
for COVID-19**



Exposure Determination

□ Exposure Risk Categories

■ Lower Exposure Risk

- Tasks do not require contact with people known or suspected of being infected with SARS-CoV-2
- Tasks do not have frequent close contact with the public
- Workers have minimal occupational contact with coworkers & the public

■ Medium Exposure Risk

- Tasks require frequent OR close contact with people who may be infected with SARS-CoV-2, but who are NOT a known/suspected COVID-19 patient
- In areas with ongoing community transmission, workers that have contact with the public (schools, high-population-density work environments, high-volume retail settings)
- In areas without ongoing community transmission, workers that have frequent contact with travelers from areas with ongoing community transmission

Exposure Determination

□ Exposure Risk Categories (cont.)

■ High Exposure Risk

- Tasks with high potential for exposure to known or suspected sources of COVID-19
- Worker could include: licensed health care professionals, medical first responders, nursing home employees, law enforcement, correctional officers, or mortuary workers

■ Very High Exposure Risk

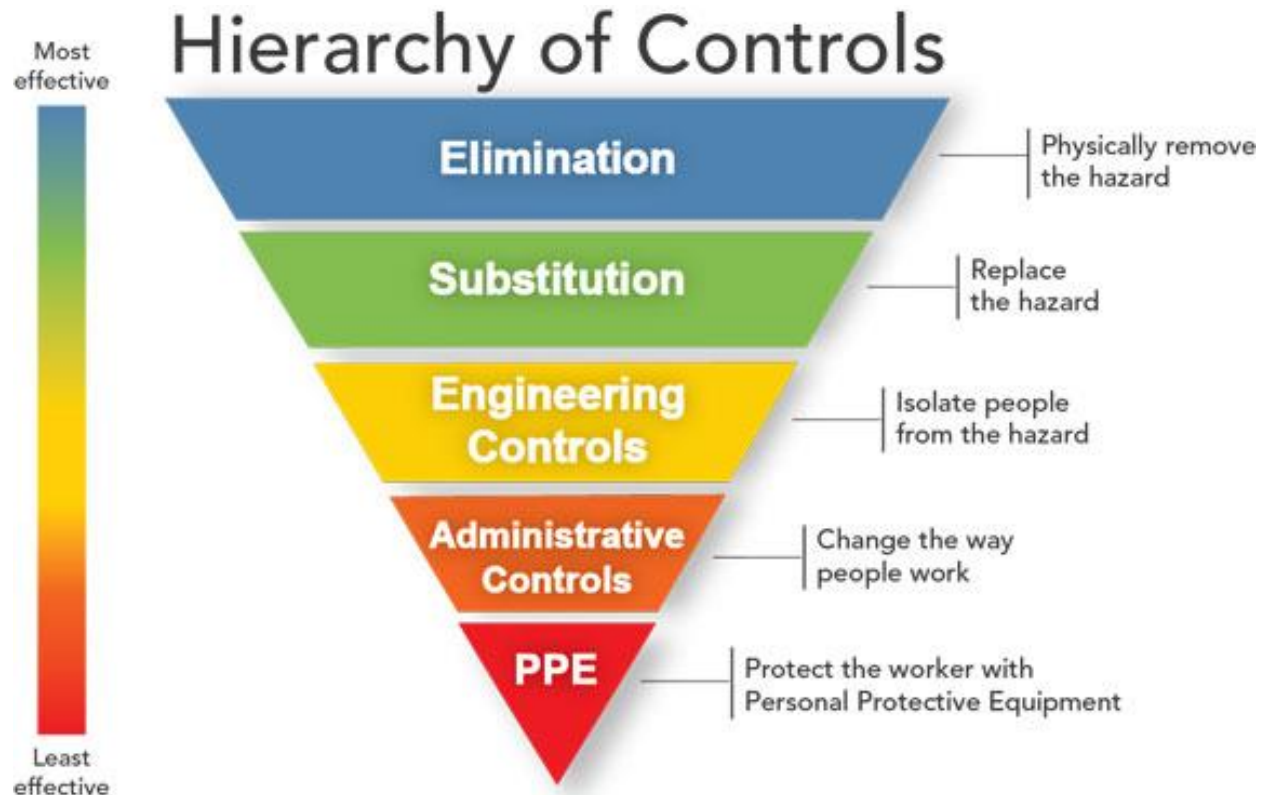
- Tasks with high potential for exposure to known or suspected sources of COVID-19 during specific medical, postmortem, or laboratory procedures
- Workers could include:
 - Healthcare workers (doctors, nurses, dentists, paramedics, EMTs) performing aerosol-generating procedures on known/suspected COVID-19 patients
 - Healthcare or Laboratory workers collecting or handling specimens from known/suspected COVID-19 patients
 - Morgue workers performing autopsies on bodies of people who are known/suspected of having COVID-19 at the time of their death

COVID-19 Preparedness & Response Plan

[MIOSHA Sample COVID-19
Preparedness & Response Plan for
Low-Med Risk Employees](#)

- ❑ Develop & Implement a written COVID-19 Preparedness & Response plan
- Use current OSHA guidance for COVID-19 - [Guidance on Preparing Workplaces for COVID-19](#)
- Use current CDC COVID-19 guidance
- The preparedness & response plan **shall** include the employee exposure determination & **shall** detail measures to prevent employee exposure, including any:
 - Engineering Controls
 - Administrative Controls
 - Basic Infection Prevention Measures
 - Person Protective Equipment
 - Health Surveillance
 - Training
- The employer **shall** make the preparedness & response plan readily available to employees & their representatives (website, internal network, or hardcopy)

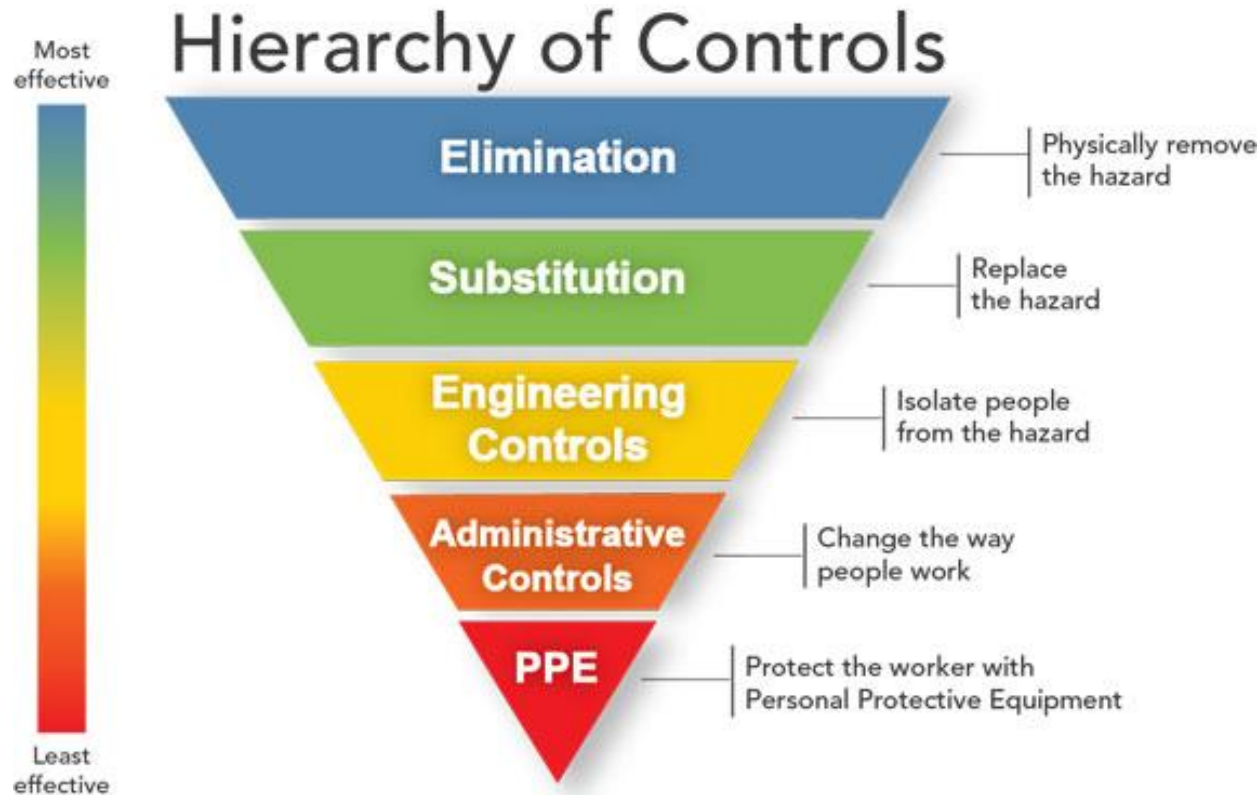
COVID-19 Preparedness & Response Plan



■ Examples of Engineering Controls

- High-efficiency Air Filters
- Increased Ventilation Rates
- Physical Barriers – Clear plastic barriers, sneeze guard, plexiglass
- Installing a drive-thru window

COVID-19 Preparedness & Response Plan



- Examples of Administrative Controls
 - Restrict non-essential business travel
 - Encourage hand washing and use of hand sanitizer through posters and training
 - Promote remote work
 - Implement rotational shift schedules to reduce the number on employees onsite at the same time
 - Stagger meal and break times
 - Use posters, signs, barriers, or floor markings to reduce congestion

Basic Infection Prevention Measures

- ❑ The employer **shall**:
 - ❑ Promote frequent & thorough handwashing, including by providing workers, customers, & worksite visitors a place to wash hands; Provide antiseptic hand sanitizer or alcohol-based hand towelettes containing 60% alcohol when soap & water are unavailable
 - ❑ Require workers who are sick to not report to work or work in an isolated location
 - ❑ Prohibit workers from using other workers' phones, desks, offices, or other work tools & equipment when possible
 - ❑ Create policy prohibit in-person work for employees to the extent that their work activities can feasibly be performed remotely

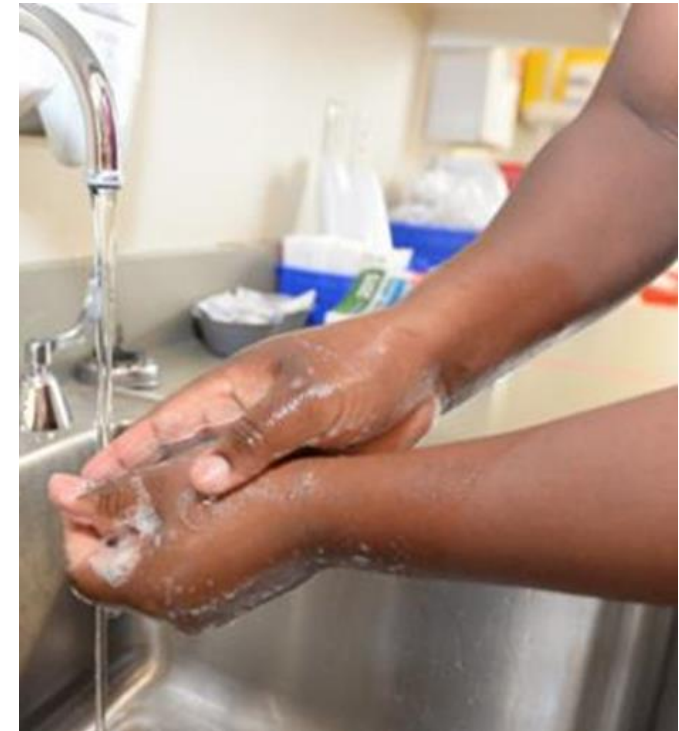


Photo: U.S. Department of Defense

Basic Infection Prevention Measures (cont)

- ❑ The employer **shall**:
 - ❑ Increase facility cleaning & disinfection to limit exposure to SARS-CoV-2; focus on:
 - High touch surfaces (e.g. door handles)
 - Parts, products, and shared equipment (e.g tools, machinery, and vehicles)
 - ❑ Use EPA approved disinfectants expected to be effective against SARS-CoV-2: [List N](#)
 - ❑ Follow manufacturer's instructions for cleaning & disinfection products (e.g. concentration, application method, contact time, and PPE)



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Basic Infection Prevention Measures (cont.)

General Information

- **Cleaning**
 - The removal of germs, dirt, and impurities from surfaces. Removes, but does not kill germs
 - Use soap & water
- **Disinfecting**
 - The use of chemicals to kill germs on surfaces. Does not necessarily remove germs from a surface
- **Common Disinfectants**
 - EPA List N: Disinfectants for Coronavirus
 - Bleach Solution - $\frac{1}{3}$ cup bleach per gallon water or 4 teaspoons bleach per quart water
 - 70% alcohol solutions may also be used – wipes or liquid

Health Surveillance

- ❑ The employer **shall** conduct a daily entry self-screening protocol

For all employees and contractors entering the workplace

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graph TD; A[For all employees and contractors entering the workplace] --> B[At minimum, a questionnaire that includes questions about:]; B --> C[Temperature Screening (if possible)];
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At minimum, a questionnaire that includes questions about:

Symptoms of COVID-19

Contact with individuals known or suspected COVID-19

Temperature Screening (if possible)

Health Surveillance (cont.)

- ❑ The employer **shall**:
 - ❑ Direct employers to promptly report any signs & symptoms of COVID-19 their experiencing to the employer before OR during the work shift
 - ❑ Physically isolate any employees know or suspected to have COVID-19 from the remainder of the workforce, using measure such as, but not limited to:
 - Not allowing known/suspected cases to report to work
 - Sending know/suspected cases away from the workplace
 - Assigning known/suspected cases to work alone at a remote location (e.g. their home), as their health allows



Health Surveillance (cont.)

- ❑ When an employer learns of an employee, visitor, or customer with a known case of COVID-19, the employer **shall**:
 - ❑ Immediately notify the local public health department AND
 - ❑ Within 24 hours of learning of the known case, notify any co-workers, contractors, or suppliers who may have come into contact with the person with a known case of COVID-19
- ❑ Employer **shall** allow employees with a known/suspected case of COVID-19 return to the workplace only after:
 - ❑ The individual is no longer infectious according to the latest guidelines from the CDC AND
 - ❑ The individual is released from any quarantine or isolation order by the local public health department
- ❖ CDC Guidance for [Return to Work for Persons with COVID-19 Not in Healthcare](#)
- ❖ CDC Guidance for [Return to Work for Healthcare Personnel with COVID-19](#)

Workplace Controls

- ❑ The employer **shall** designate one or more worksite COVID-19 safety coordinator
 - ❑ COVID-19 Safety Coordinator
 - Must Implement, monitor, & report on the COVID-19 control strategies required for the worksite
 - Must remain on-site at all times when employees are present on site
 - An on-site employee may be designated to perform the COVID-19 safety coordinator role
- ❑ The employer **shall** place posters in the languages common in the employee population that encourage staying away from work when sick, cough & sneeze etiquette, and proper hand hygiene practices



Fit face covering over mouth and nose



Stay at least 6 feet (about 2 arms' length) from other people.



Workplace Controls (cont.)

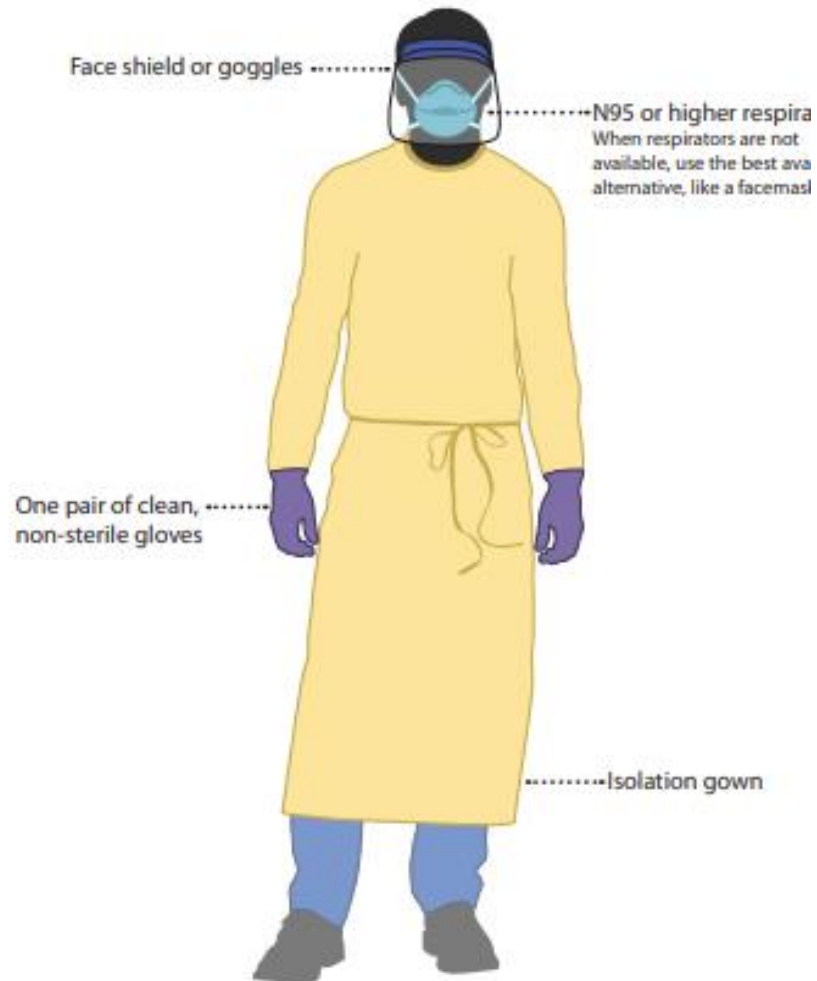
❑ The employer **shall**:

- ❑ Keep everyone on the worksite at least 6ft from one another and reduce congestion
 - ❖ Use ground markings, signs and physical barriers as appropriate to ensure social distancing and reduce congestions
- ❑ Provide non-medical grade face coverings to their employees
- ❑ Require face coverings when employees cannot consistently maintain 6ft of separation from others
- ❑ Consider face shields (in addition to face coverings) when employees are unable to consistently maintain 3ft of separation from others
- ❑ Require face coverings in shared spaces, including during in-person meetings and in restrooms and hallways

Personal Protective Equipment (PPE)

- The employer **shall**:
- Provide employees with types of PPE, including respirators as necessary, for protection from SARS-CoV-2 appropriate to the exposure risk associated with the job
- Ensure PPE is:
 - Properly worn
 - Used consistently
 - Regularly inspected, maintained, and/or replaced (as necessary)
 - Properly removed, cleaned, and stored or disposed of to avoid contamination to self, others, or the work environment

Preferred PPE – Use N95 or Higher Respirator



Personal Protective Equipment (cont.)

- In establishments that provide medical treatment or house know/suspected cases of COVID-19, the employer **shall** ensure that employees in frequent or prolonged close contact with such cases are provided with and wear, **at a minimum**:
 - N-95 respirator
 - Goggles or face shield AND
 - Gown

Face Coverings vs Respirators

COVID-19 FACEMASKS VS. RESPIRATORS



Cloth or Paper Face Mask



Surgical Face Mask



Filtering Facepiece Respirator (e.g. N95)

	Cloth or Paper Face Mask	Surgical Face Mask	Filtering Facepiece Respirator (e.g. N95)
Testing & Approval	Not tested or approved, but recommended by the CDC	Cleared by the U.S. Food and Drug Administration per 21 CFR 878.4040	Evaluated, tested and approved by NIOSH per 42 CFR Part 84
Intended Use & Purpose	To prevent transmission of the virus between people in close proximity	A fluid resistant barrier designed to protect the wearer from large droplets, splashes or sprays of bodily or other hazardous fluids.	Reduces the wearer's exposure to small particle aerosols and large droplets

COVID-19 VOLUNTARY VS. REQUIRED RESPIRATOR USE



The employer determines the necessary PPE required for the job task(s). The employer is responsible for payment, replacement, maintenance, cleaning, laundering and disposal of PPE. Training should be provided to employees regarding proper use, limitations, care and maintenance of PPE. Where respirators are provided, the following table outlines additional requirements:

Guidelines for Employees Using Respiratory Protection

	Filtering Facepiece Respirator (e.g. N95)	
	Required	Voluntary
Fit Testing	Yes	No
Medical Evaluation	Yes	No
Facial Hair Prohibited	Yes	No
Appendix D Provided	No	Yes
Training per 1910.134(k)	Yes	No
Cleaning, Storage & Maintenance of Respirator	Yes	Yes

- Know the difference between cloth face coverings and respirators
- NIOSH Certified Respirators require compliance to the Respiratory Protection Program
- [Facemasks vs Respirators Factsheet](#)
- [Voluntary vs Required Respirator Use Factsheet](#)

What are Air-Purifying Respirators?

Air-purifying respirators (APRs) work by removing gases, vapors, aerosols (droplets and solid particles), or a combination of contaminants from the air through the use of filters, cartridges, or canisters. These respirators do not supply oxygen and therefore cannot be used in an atmosphere that is oxygen-deficient or immediately dangerous to life or health. The appropriate respirator for a particular situation will depend on the environmental contaminant(s).

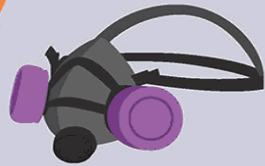
Filtering Facepiece Respirator (FFR)



- Disposable
- Covers the nose and mouth
- Filters out particles such as dust, mist, and fumes
- Select from N, R, P series and 95, 99, 100 efficiency level
- Does NOT provide protection against gases and vapors
- Fit testing required

Elastomeric Half Facepiece Respirator

- Reusable facepiece and replaceable cartridges or filters
- Can be used to protect against gases, vapors, or particles, if equipped with the appropriate cartridge or filter
- Covers the nose and mouth
- Fit testing required



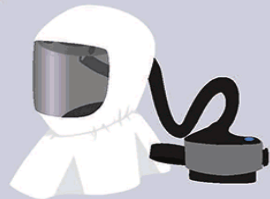
Elastomeric Full Facepiece Respirator

- Reusable facepiece and replaceable canisters, cartridges, or filters
- Can be used to protect against gases, vapors, or particles, if equipped with the appropriate cartridge, canister, or filter
- Provides eye protection
- More effective face seal than FFRs or elastomeric half-facepiece respirators
- Fit testing required



Powered Air-Purifying Respirator (PAPR)

- Reusable components and replaceable filters or cartridges
- Can be used to protect against gases, vapors, or particles, if equipped with the appropriate cartridge, canister, or filter
- Battery-powered with blower that pulls air through attached filters or cartridges
- Provides eye protection
- Low breathing resistance
- Loose-fitting PAPR does NOT require fit testing and can be used with facial hair
- Tight-fitting PAPR requires fit testing



Respirator Information

- MIOSHA [Part 451 Respiratory Protection](#) Key Program Elements
 - NIOSH Certified Respirators
 - Written Program – [MIOSHA Sample Program](#)
 - Medical Evaluation
 - Fit Testing
- Voluntary use respirators require a respiratory protection program
 - The respirator worn will prescribe which program elements are required for voluntary use
 - Use resources to evaluate program requirements - [OSHA Small Entity Compliance Guide to Respiratory Protection](#)
- Stay updated to temporary enforcement guidance given by [OSHA Enforcement Memos for COVID-19](#)

Employee Training

- Employer **shall** provide:
 - Training to employees on SARS-CoV-2 and COVID-19
 - Communication and training on COVID-19 infection control practices in the primary languages common in the employee population
 - Updated training if:
 - There are changes to its COVID-19 preparedness & response plan OR
 - New information becomes available about the transmission of SARS- CoV-2
- Training **shall** cover:
 - Workplace infection control practices
 - Proper use of PPE
 - Steps employees must follow to employer of COVID-19 symptoms or a suspected or confirmed case of COVID-19
 - How to report unsafe working conditions

Recordkeeping

- Employers **must** maintain a record of the following:
 - Training; maintain all COVID-19 employee training
 - Screening Protocols; maintain a record of screening for each employee or visitor entering the workplace
 - Records of Required Notifications; maintain record of notifications associated to confirmed cases of COVID-19 in the workplace (see Rule 6 for health surveillance)
- Employers **must** maintain records for one year from time of generation

COVID-19 RECOMMENDATIONS

ADDITIONAL
RESOURCES FOR
RESEARCH LABS

CDC Guidance

Coronavirus Disease 2019 (COVID-19)

[Your Health](#)[Community, Work & School](#)[Healthcare Workers & Labs](#)[Health Depts](#)[Cases & Data](#)[More](#)

Laboratories

Resources for Labs

[Multiplex Assay for Flu and COVID-19 & Supplies](#)[Diagnostic Test for COVID-19 Only & Supplies](#)[Calculating Percent Positivity](#)[Point-of-Care Testing](#)[Using Antigen Tests](#)[Using Antibody Tests](#)[Reporting Lab Data](#)[Laboratory Biosafety Guidelines](#)[General Laboratory Safety Practices](#)

LABORATORIES

Guidance for General Laboratory Safety Practices during the COVID-19 Pandemic

Updated Aug. 15, 2020

[Print](#)

General Guidance

This guidance is to address the general workflow safety concerns of laboratory personnel during the COVID-19 pandemic. All laboratories should perform site- and activity-specific risk assessments to determine the most appropriate safety measures to implement for particular circumstances. In addition, facilities should adhere to local policies and procedures as well as all applicable federal, state, and local regulations and public health guidelines.

Risk assessments should include the following considerations:

- Analyze the number of people that the laboratory space can realistically and safely accommodate while maintaining [social distancing](#).
- Assess the flow of personnel traffic. Where possible, design one-way paths for staff to walk through the laboratory space.

COVID-19 Resources

State of Michigan

- [Coronavirus](#)
- [Emergency Epidemic Orders](#)
- [Michigan Coronavirus Resources](#)
- [Michigan Safe Start Map](#)

MIOSHA

- [COVID-19 Interim Enforcement Plan](#)
- [Workplace Safety Guidance for COVID-19](#)
- [Sample COVID-19 Preparedness & Response Plan](#)

OSHA

- [COVID-19 Information](#)
- [Guidance on Preparing Workplaces for COVID-19](#)
- [Enforcement Memos for COVID-19](#)
- [Interim Guidance for Specific Industries](#)

CDC

- [Coronavirus Disease \(COVID-19\)](#)
- [Guidance for Businesses & Workplaces](#)
- [Return to Work Guidance for Individuals with COVID-19 Not in Healthcare](#)
- [Guidance for Cleaning & Disinfecting](#)
- [General Business FAQs](#)
- [Healthcare Workers FAQs](#)

Other

- AIHA – [Back to Work Safety Industry Specific Recommendations](#)

MIOSHA Resources

- [MIOSHA Webpage](#)
- [MIOSHA Consultation, Education & Training \(CET\) Division](#)
- [MIOSHA Standards](#)
- [Request for Consultative Assistance](#)
- [PPE Guide for General Industry \(SP #16\)](#)
- [Respiratory Protection Program – Sample Written Program \(SP #05\)](#)
- [Hazard Communication Program – Sample Written Program \(CET 5530\)](#)
- [MIOSHA Training Program](#)



Contact MIOSHA

Michigan Occupational Safety and Health Administration (MIOSHA)

530 W. Allegan Street, P.O. Box 30643

Lansing, Michigan 48909-8143

If you need further information regarding COVID-19

Call 855-SAFEC19 (855-723-3219).

To request consultation, education and training services, call 517-284-7720

or visit our website at:

www.michigan.gov/miosha

