COVID-19 Preparedness and Response Plan for
On-campus Employees during the COVID-19 Pandemic

Updated June 29, 2020
Introduction

Coronavirus Disease 2019 (COVID-19) is a respiratory disease caused by the SARS-CoV-2 virus. This document will summarize the University of Michigan preparedness and response actions for COVID-19 based on traditional infection prevention and industrial hygiene practices. It focuses on the implementation of engineering, administrative, and work practice controls and personal protective equipment (PPE), in the effort to control employee exposures to the extent feasible.

This plan is intended to provide information on the risk levels in workplace settings and the appropriate control measures that should be implemented based on the risk present. This document will be adjusted as needed as COVID-19 outbreak conditions change, including new information about the virus, its transmission, and impacts, becomes available.

This document serves as the UM workplace expectations and guidelines for staff that are on-campus in regard to management of COVID-19 risk mitigation. All policies, protocols, and requirements are expected to be followed and failure to do so may result in corrective action. Many of the required elements within this document are derived from the State of Michigan Executive order titled “Safeguards to protect Michigan’s workers from COVID-19” and as referenced in that document, any business or operation that violates the rules outlined in that order has failed to provide a place of employment that is free from recognized hazards that are causing, or are likely to cause, death or serious physical harm to an employee, within the meaning of the Michigan Occupational Safety and Health Act (MIOSHA), MCL 408.1011.


The MiOSHA home page also offers COVID-19 information specifically for workers and employers in Michigan: https://www.michigan.gov/leo/0,5863,7-336-78421_11407---,00.html.

Additionally, the State of Michigan’s Coronavirus webpage is updated daily and provides current public health and safety resources for employers, employees, and the general public https://www.michigan.gov/coronavirus/

The University communicates frequently to our employees and students, providing health and safety guidance and direction while encouraging them to stay informed by checking the following university websites and resource pages:

U-M Maize and Blue Print website: https://campusblueprint.umich.edu/guiding-principles

U-M Key Issues COVID-19: https://coronavirus.umich.edu/

UM EHS COVID-19: https://ehs.umich.edu/2020/03/24/ehs-covid-19-information/

Note: These practices are intended to apply to on-campus employees only. The practices outlined in this document do not apply to employees who are working remotely although it would be prudent to follow the general guidance to minimize risk of exposure.

Environment, Health & Safety is available for consultation at 734-647-1143
About COVID-19

Symptoms of COVID-19

Infection with SARS-CoV-2, the virus that causes COVID-19, can cause illness ranging from mild to severe and, in some cases, can be fatal. Symptoms typically include cough, shortness of breath or difficulty breathing, chills, repeated shaking with chills, muscle pain, headache, sore throat and new loss of taste or smell. Some people infected with the virus have reported experiencing other non-respiratory symptoms. Other people, referred to as asymptomatic cases, have experienced no symptoms at all.

According to the CDC, symptoms of COVID-19 may appear in as few as 2 days or as long as 14 days after exposure.

How COVID-19 Spreads

Although the first human cases of COVID-19 likely resulted from exposure to infected animals, infected people can spread SARS-CoV-2 to other people.

The virus is thought to spread mainly from person-to-person, including:

- Between people who are in close contact with one another (within about 6 feet).
- Through respiratory droplets produced when an infected person coughs or sneezes.
- These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs.
- Some recent studies have suggested that COVID-19 may be spread by people who are not showing symptoms.

It may be possible that a person can get COVID-19 by touching a surface or object that has SARS-CoV-2 on it and then touching their own mouth, nose, or possibly their eyes, but this is not thought to be the primary way the virus spreads.

The virus that causes COVID-19 is spreading very easily and sustainably between people. Information from the ongoing COVID-19 pandemic suggest that this virus is spreading more efficiently than influenza, but not as efficiently as measles, which is highly contagious.

Workplace Requirements

Until further notice, the University expects that any faculty or staff who can work from home will continue to do so.

Currently the university is expected to comply with the State of Michigan Executive Orders as they pertain to phasing workplaces to return to work under a controlled set of requirements. As an institution we will strictly adhere to the requirements within the order and any department or sector within the university, may not return until all required elements of this document can be in place, once the State of Michigan executive orders allows that specific activity to occur.

The following are workplace expectations that must be part of a unit or departments plans to return to work. Units that currently have staff that are providing essential work must also follow these standards as they apply. Units that have staff on site periodically, should work towards implementation, but would not be required to implement full-scale until they have increased density in their space.

It is important to note, that this information is subject to change as the State of Michigan updates their executive orders as well as when additional guidance for U-M Campus planning is in place. Refer to https://campusblueprint.umich.edu/guiding-principles

Department-specific COVID-19 Work Plan

When allowed, the University will employ a phased approach for return to campus based on a set of specific criteria that will include an established need to resume activities on campus, ability to effectively manage with strict adherence to established protocols, etc. No unit should return to campus without prior approval even if the State or Michigan executive order indicate that certain activities are allowed.

Each department will be expected to create a departmental specific COVID-19 work plan for their area to document their COVID-19 assessment and plan. Each unit should obtain approval from AVP level or higher prior to returning to work. Templates are available on the EHS COVID-19 page (General workplace, Outpatient, Outside Work.)

Remote Work

Currently the State of Michigan executive orders allows the resumption of in-person work provided that safeguards of this plan are in place. However, this does not mean that departments can and should return, even when the university allows more work to resume on campus. We are still obligated to continue to promote remote work to the fullest extent possible.

The stakes are very high and the risk of cases increasing in the state to the point where “stay at home” orders are issued is too high. Continuing all work that can be done remotely will reduce the total number of individuals coming to campus which lowers the risk of infection overall. This will also allow for density reductions within the work place to allow for proper social distancing of the on-site personnel.

Consideration for employees’ needs for computers and other items, ensuring access to departmental shared drives and programs, and ensuring that workers new workspace will not contribute to ergonomic discomfort must be in place.
Refer to ITS Remote resource guide to aid students, staff and faculty to work or learn remotely. Refer to an EHS document regarding considerations for Ergonomics of working from home.

**U-M Exposure Determination**

Worker risk of occupational exposure to SARS-CoV-2, the virus that causes COVID-19, during an outbreak may vary from very high to high, medium, or lower (caution) risk. The level of risk depends in part on the type of work conducted, need for contact within 6 feet of people known to be, or suspected of being, infected with SARS-CoV-2, or requirement for repeated or extended contact with persons known to be, or suspected of being, infected with SARS-CoV-2.

MIOSHA has divided job tasks into four risk exposure levels: very high, high, medium, and lower risk and employers are required to make a determination of exposure for their staff. The following is the UM Exposure Determination:

<table>
<thead>
<tr>
<th>Exposure Risk:</th>
<th>Description:</th>
<th>U-M Specific:</th>
</tr>
</thead>
</table>
| Very High Exposure Risk:         | These jobs are those with high potential for exposure to known or suspected sources of COVID-19 during specific medical, postmortem, or laboratory procedures. | ● Health care workers performing invasive specimen collection  
● Dentists performing some aerosol-generating procedures and exams  
● Autopsy/Medical Examiners  
● COVID-19 researchers working with live SARS-CoV-2 |
| High Exposure Risk:              | High exposure risk jobs are those with high potential for exposure to known or suspected sources of COVID-19. | ● Healthcare delivery and support staff exposed to known or suspected COVID-19 patients.  
● DPSS transport workers moving known or suspected COVID-19 patients in enclosed vehicles.  
● Police Officers  
● Staff members responsible for cleaning area where COVID positive individuals were occupying |
| Medium Exposure Risk:            | These jobs include those that require frequent and/or close contact (within six feet) with people who may be infected with SARS-CoV-2, but who are not known or suspected COVID-19 patients. In areas where there is ongoing community transmission, workers in this category may have contact with the general public and coworkers (for example, schools, high-population-density work environments, high-volume retail settings). | ● Cashiers  
● Receptionists  
● Customer Service  
● Transit Operators  
● Maintenance & Trades personnel that perform essential work tasks that require close contact.  
● Trainer staff that need to interact directly with athletes.  
● Day care staff that must have contact with children (e.g. infants/toddlers)  
● Faculty/Instructors of lab/studio courses where interaction is needed. |
Researchers conducting human subjects research where they are unable to maintain >6ft distance.
Clinicians (Psychologists, Social Workers and Speech Language Pathologists) unable to maintain >6 ft with clients who may not be able to wear face coverings.

<table>
<thead>
<tr>
<th>Lower Exposure Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>These jobs are those that do not require contact with people known to be, or suspected of being, infected with SARS-CoV-2 nor frequent close contact (within six feet) with the general public. Workers in this category have minimal occupational contact with the public and other coworkers.</td>
</tr>
<tr>
<td>Includes all individuals that can perform job duties maintaining social distancing. Includes:</td>
</tr>
<tr>
<td>• Office/Admin personnel</td>
</tr>
<tr>
<td>• Staff performing research</td>
</tr>
<tr>
<td>• Custodians</td>
</tr>
<tr>
<td>• Delivery personnel</td>
</tr>
<tr>
<td>• Maintenance and Trades workers that are able to socially distance</td>
</tr>
<tr>
<td>• Faculty/instructional staff</td>
</tr>
</tbody>
</table>

Measures must be put into place to minimize worker exposures to SARS-CoV-2 based on an employee exposure determination. See the table below and refer to Appendix A for further information. Details of additional requirements based on exposure determination should be included in your departmental COVID-19 work plan. Non-routine tasks can be handled separately through a risk assessment process as well.

<table>
<thead>
<tr>
<th>Exposure Determination</th>
<th>Workplace Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Exposure Risk</td>
<td>• Implement all Workplace Requirements</td>
</tr>
<tr>
<td></td>
<td>• Implement all Health &amp; Safety Guidance</td>
</tr>
<tr>
<td></td>
<td>• Require Use of Face Coverings when in indoor public spaces</td>
</tr>
<tr>
<td>Medium Exposure Risk</td>
<td>• Above items, plus:</td>
</tr>
<tr>
<td></td>
<td>• Install physical barriers, such as clear plastic sneeze guards, where feasible</td>
</tr>
<tr>
<td></td>
<td>• If public interaction is necessary, require face coverings to be worn.</td>
</tr>
<tr>
<td></td>
<td>• Consider strategies to minimize face-to-face contact (e.g., phone-based communication, telework).</td>
</tr>
<tr>
<td></td>
<td>• Conduct a Risk Assessment to determine need for additional PPE or other controls. Contact EHS for assistance.</td>
</tr>
<tr>
<td>High or Very Exposure Risk</td>
<td>• Above items, plus:</td>
</tr>
<tr>
<td></td>
<td>• Ensure appropriate air-handling systems are installed and maintained in healthcare facilities. CDC recommends that patients with known or suspected COVID-19 should be placed in an airborne infection isolation room.</td>
</tr>
<tr>
<td></td>
<td>• For postmortem activities, use autopsy suites or other similar isolation facilities when performing aerosol-generating procedures on the bodies of people who are known to have, or suspected of having, COVID-19 at the time of their death.</td>
</tr>
<tr>
<td></td>
<td>• Use special precautions associated with Biosafety Level 3 when handling specimens from known or suspected COVID-19 patients.</td>
</tr>
<tr>
<td></td>
<td>• Develop and implement policies that reduce exposure, such as cohorting (i.e., grouping) COVID-19 patients when single rooms are not available.</td>
</tr>
</tbody>
</table>
- Post signs requesting patients and family members to immediately report symptoms of respiratory illness on arrival at the healthcare facility and use disposable face masks.
- Consider offering enhanced medical monitoring of workers during COVID-19 outbreaks.
- Ensure that psychological and behavioral support is available.
- Conduct a Risk Assessment to determine need for additional PPE or other controls. Contact EHS for assistance.

**COVID-19 Daily Self-Screening Protocols**

All employees should be reminded that they should stay home if they are feeling sick or if at work, they should leave immediately if they begin to feel unwell. If they need to remain at work for a period, an area with closable doors should be dedicated to isolate the ill individual from other co-workers. Sick leaves policies have been updated to ensure they are flexible and consistent with public health guidelines and posted on the University Human Resources COVID-19 website. The university is prohibited from discharging, disciplining or otherwise retaliating against employees who stay home or who leave work when they are at particular risk of infecting others with COVID-19.

All employees and contractors entering the workplace must at a minimum conduct a daily entry self-screening protocol including, at a minimum, a questionnaire covering symptoms and suspected or confirmed exposure to people with possible COVID-19. Refer to the EHS Daily Self-screening protocol. Workers in certain areas such as construction and research are required to do more extensive screening protocols. Refer to the guidance for specific workplaces for more information.

University of Michigan Occupational Health Services (OHS) has established a COVID-19 hotline at 734-764-8021 (select prompt 1) to manage and triage employees for testing and tracking as required. All university employees are encouraged to report symptoms through this mechanism and all employees are required to report if they have been tested positive for COVID-19 if they seek testing through another source.

**COVID-19 Positive Cases, Contact Tracing and Employee Notification**

Employees that test positive for COVID-19 will be notified by OHS and provided guidance for self-isolation. Contact tracing and Employee Notification will be coordinated between OHS, University Health Service (UHS) and EHS. When an employee is identified with a confirmed case of COVID-19, the local health department and any co-workers, contractors or suppliers whom may have come in contact with the individual will be notified within 24 hours.

Contact Tracing is a public health tool that has been used for decades to identify people who have come in contact with an SARS-CoV-2 positive individual in an attempt to reduce the spread of a disease. It will be used at the University of Michigan to:

- Alert coworkers who may have been in close contact of the potential exposure;
- Identify localized outbreaks and ultimately control the spread of illness across campus.

Medical confidentiality and privacy will be maintained. Contacts will only be told they have been exposed to a positive case, but the identity of that case will NOT be directly revealed. Sensitivity to individual situations will be maintained.
Employees with a confirmed or suspected case of COVID-19 can return to the workplace only after they are no longer infectious according to the latest guidelines from the Centers for Disease Control and Prevention ("CDC").

Refer to the EHS Contract Tracing Protocol for Positive COVID-19 cases for Ann Arbor Campus Employees at the University of Michigan for more information on the process. Also refer to the COVID-19 Exposure Guidance for Staff and Supervisors for further information on the response plan for confirmed cases in the workplace.

Workers in certain areas such as research have more extensive protocols for contact tracing. Refer to the guidance for specific workplaces for more information.

**Vendors, Contractors and Visitors**

Screening protocols that are required for areas must also include contractors, suppliers, vendors, and visitors. They should complete the daily screen available at [https://healthscreen.umich.edu/](https://healthscreen.umich.edu/) and be able to show compliance upon request or answer the questions in person. All other screening requirements for entry at UM building checkpoints or contractor controlled worksites will also be required.

Vendors, suppliers, contractors, etc. must follow their company COVID-19 Preparedness and Response plan and must wear face coverings when in U-M buildings. Some locations do not allow a personal face covering and in those areas, all that enter will be provided a face covering for use during visit.

Any outside entity must notify their university contact if they or a member of their team has a confirmed COVID-19 cases that occurs within 14 days of their last day on campus. If a confirmed case occurs in a building or a worksite, EHS will conduct contact tracing and notify medium and high risk exposure individuals, including contractors within 24 hours of notification.

**Staffing Management**

Reducing the density of employees within the workplace is integral to minimize potential exposure to SARS-CoV-2 in the workplace. Specific guidance will be forthcoming on management of density in certain areas within campus. A general guide that is subject to change is no more than 30% of your normal workplace capacity at any one time and approximately 144 square feet of space should be allotted per individual. This can be achieved by rotating days or weeks that employees are on-site. Ideally, maintaining separate cohorts of individuals in the workplace is recommended, if feasible, to reduce exposure potential. This need varies greatly depending on the type of work and locations that an employee works in.

Reducing overall density should allow workers to maintain adequate social distancing of > 6 feet. Work plans should evaluate the ability of each worker to maintain social distancing. This may include the need to stagger individuals based on the locations that sit in. Partitions are not recommended as a strategy to not follow social distancing requirements and should generally be used for interactions with the public to minimize exposures.

Considerations for the staggering of shifts to accommodate reducing the amount of people entering and exiting at the same time should also be part of a work plan.
Training

All employees on-site are required to take COVID-19 Training that at a minimum covers the following:

- Workplace infection controls practices
- The proper use of personal protective equipment
- Steps the employee must take to notify the university of any symptoms of COVID-19 or a suspected or confirmed diagnosis of COVID-19
- How to report unsafe working conditions.

Below are two training modules available in My LINC:

- COVID-19: Working Safely at U-M
- COVID-19: Working Safely in U-M Research Areas
- EHS_BLS_COVID_HRw Human Research During COVID-19

Documentation that employees have taken this training is required and is maintained in the system. Departments should also ensure that individuals are trained on their site-specific workplace requirements.

COVID-19 On-site Supervision

Each department must designate one or more on-site supervisors to implement, monitor and report on the department specific COVID-19 plan. A supervisor must remain on-site at all times when employees are present on-site. An on-site employee may be designated to perform the supervisory role.

Travel Restrictions

University International and Domestic Travel is prohibited until June 30th. Additionally, due to financial considerations only essential travel should be considered past this date.

- U.S. Department of State (DOS) travel advisories: travel.state.gov
Health & Safety Measures

Protecting workers from exposure to SARS-CoV-2 is dependent on requiring basic infection prevention measures to be in place. The following are required practices that must be put part of all workplace plans and enforced as standard practices for workplace health and safety. COVID-19 Signage and Floor markings is available for download and purchase and plexiglass shields and partitions are available for purchase.

Face-coverings

Per the State of Michigan Executive order, any individual able to medically tolerate a face covering must wear a covering over his or her nose and mouth—such as a homemade mask, scarf, bandana, or handkerchief—when in any enclosed public space. At this time, we interpret the Executive Order to require the use of a face covering when you are (1) indoors in a place other than your home and in an area where you cannot self-isolate (e.g., you cannot close the door and expect other individuals not to come into the room) and (2) with other individuals in the same space or where you are likely to encounter another individual. Refer to the EHS Guidance for more information on the donning, doffing, use and care of a face covering, Face Covering Usage for COVID-19: General Info and Update

Individuals can provide their own face coverings if they desire; however, departments are responsible for providing non-medical grade face coverings for all workers that perform in-person work that is allowed to be conducted under the Executive Order. U-M Procurement has additional guidance available on face covering purchases.

Respiratory Etiquette

If individuals are not wearing a face covering (e.g. in an outdoor setting or individual office), they should be reminded to always cover their cough or sneeze with a tissue or the inside of their elbow, throw away all tissues and immediately wash their hands with soap and water for 20 seconds or use hand sanitizer that contains at least 60% alcohol.

Social Distancing

Keeping adequate spacing between yourself and others is one of the most important behaviors that can minimize your risk of being exposed to SARS-CoV-2 virus. Remember that some people without symptoms may be able to spread virus so it is important to stay at least 6 feet (about 2 arms’ length) from other people. Casual conversations and interactions should be limited.

Work should be conducted in a manner that avoids individuals working where they cannot maintain 6 feet. The use of ground markings, signs and physical barriers should be used as appropriate in the workplace.

If work tasks do not allow for social distancing of 6 feet, the task should be reviewed to determine if it is critical. Only critical tasks should be allowed to be conducted. The use of face shields should be considered in addition to the use of face coverings when individuals cannot maintain three feet of separation from other individuals. EHS can assist with a risk assessment for tasks where social distancing of 6 feet cannot be maintained.

Handwashing

Frequent and thorough hand washing with soap and water for at least 20 seconds especially after an individual has been in a public place or after sneezing, coughing, blowing your nose or touching one’s face must be followed.
stringently. Workplaces should be provided with adequate access to handwashing facilities. Paper toweling is preferred over hand drying machines. If soap and running water are not immediately available, provide alcohol-based hand rubs containing at least 60% alcohol. Refer to the CDC video on Proper Handwashing for more details on technique. Placement of hand sanitizer stations can present an issue with egress, refer to EHS guidance on Placement of Alcohol Based Hand Sanitizer in Non-Healthcare Facilities.

**Personal Protective Equipment (PPE)**

Glove use is necessary for healthcare professionals, food industry workers and individuals performing cleaning duties or other job tasks that require gloves as a standard part of their PPE. In most other situations wearing gloves is not necessary and departments should focus on promoting frequent handwashing in lieu of general use of gloves as a control strategy for COVID-19 prevention.

Similarly, individuals do not need to wear goggles, safety eyewear or face shields for general activity on campus for COVID-19 prevention. Normal job tasks that require the use of this PPE from a safety or workplace requirement perspective should continue to be followed.

**Cleaning and Disinfection**

Custodial teams across campus have increased their cleaning frequency of high-touch surfaces in common spaces using EPA registered disinfectants that are effective against SARS-CoV-2. Building occupants should also perform additional cleaning and disinfection of high-touch surfaces and shared equipment within their work areas using approved EPA disinfectants. Refer to EHS General Cleaning Guidance for more detail.

Each department is responsible for ensuring that employees have access to cleaning and disinfecting supplies and need to be provided time for hand-washing, cleaning and disinfecting as necessary. Individuals should not use other workers’ phones, desks, offices, or other work tools and equipment, unless unavoidable for necessary work. When necessary these items should be disinfected prior to and after use.

In the event an employee tests positive for COVID-19 in the workplace, supervisors are expected to contact EHS for further guidance. EHS protocols are in place to evaluate the situation and determine the need for additional cleaning and disinfection of the worksite. Refer to COVID-19 Exposure Guidance for Staff and Supervisors.
Additional Guidance for Specific Situations

Campus Vehicle Usage

For those employees that utilize university vehicles or personal vehicles for their work on campus, use should be restricted to no more than one person per vehicle, if feasible. If more than one person per vehicle is unavoidable, all individuals must wear face coverings. Also if work vehicles are not dedicated to a specific individual for their exclusive use, departments must ensure disinfection occurs after each use.

Public Transportation

Many workers rely on city or university bus travel for their commute as well as their daily travel across campus. If you must travel by bus, wear a face covering before boarding the bus and avoid touching surfaces with your hands. Socially distance to the extent feasible and as soon as possible after-disembarking, wash your hands or use alcohol-based hand sanitizer with greater than 60% alcohol.

Elevators

Promote that individuals should limit elevator use and try to use the stairs as much as possible. Maintain social distancing when waiting for the elevator. Elevators should be restricted in capacity to the number that can reasonably socially distance within 6 feet. In some cases this may mean one person only. The maximum allowable should be 4 with each standing in a corner. Elevators should be posted for their capacity and posted accordingly.

Hallways and Stairwells

Momentarily passing by another person does not significantly increase an individuals’ risk and is not considered “close contact.” All individuals should be wearing their face covering and should not linger in hallways or stairwells. In buildings where there is significant use of stairwells by multiple individuals at the same times (i.e. class changes) directional signage may be needed. If determined necessary, facilities management should work with EHS Fire Safety to review the proposed plan. Refer to EHS guideline Designation of Stairways for One-way Directional Travel in Non-healthcare Facilities.

Restrooms

To maintain physical distancing in restrooms, individuals should be reminded to observe social distancing and proper handwashing. Stalls and fixtures do not need to be taped or blocked off. For areas with doors, place a trash can by the door for those that wish to use paper towel when using the handle. The trash can should not impede egress. Paper toweling for hand drying is preferred over air dryers, but air dryers are allowable.

Atrium/Common Spaces

Atriums and common spaces may not be used for congregating, but these areas can be repurposed as spaces for lab workers to take breaks or meals or to expand desk areas. Social distancing is required as is cleaning and disinfection between individuals. Cleaning and disinfection supplies should be made available by the department or facilities group.
Conference Rooms/Huddle Rooms/Training Rooms

Meetings and training sessions should be conducted remotely using phone or video conferencing (zoom, google meet, blue jeans, etc) if possible. Even while working on campus, employees should communicate as needed by email, instant message, telephone or other available technology rather than face-to-face.

Conference, huddle, and training rooms should be limited to a maximum occupancy of 144 square feet per person. Use signage, tape off, or stack chairs (if feasible) that should not be used, in order to maintain six feet between people. Conference rooms can also be considered for use to expand work/desk space if needed. Conference rooms that are used should be disinfected on a daily basis at minimum. Materials can be left in the room and employees should clean their surface and equipment used.

For buildings with research, there are specific guidance on these spaces that must be adhered to. Refer to the unit-specific section for requirements.

Building Ventilation

Increasing ventilation can help minimize exposures in workspaces. Although the SARS-CoV-2 virus is thought to primarily be spread through person-to-person contact, increasing ventilation within a system's operating parameters can be part of a strategy for workplaces. Refer to HVAC Guidelines for University of Michigan Facilities.

Building Water Management

As many buildings on campus were at reduced building occupancy, a potential exists for stagnant water due to lowered or no use. Stagnant water can result in iron deposit, sediment formation, bacterial growth, heavy metal contamination, and aesthetic concerns such as discolored water with objectionable tastes and smells. Frequent flushing of building water lines can reduce these issues. Therefore a routine flushing program is recommended to prevent building water problems. Facilities & Operations is managing this for the campus buildings that they serve following an established protocol. Other areas should consider flushing in the building by running all sources of water for several minutes before use.

Drinking fountains, water coolers, coffee stations

Drinking fountains, water coolers, coffee stations and other shared equipment should either have reminders about proper handwashing and cleaning/disinfection for shared items. Departments should supply materials for cleaning and disinfecting these items. Adopting best practices such as using touchless refillable water bottle stations or bringing your own water bottle instead of using shared equipment are encouraged. Ice machines that require a handheld scoop should not be used, as it is difficult to control potential contamination.
Unit-specific Workplace Requirements

These additional requirements are imposed per the current State of Michigan Executive Order “Safe guards to protect Michigan's workers from COVID-19” which specifies additional requirements for certain industries.

Outdoor Work (Many university departments)

In addition to the elements covered under Workplace Requirements and Health & Safety Measures, those departments whose work is primarily and traditionally outdoors must do the following:

- Prohibit gatherings of any size which people cannot maintain six feet of distance from each other.
- Limit-in person interactions with others outside of your department.
- Wear PPE as required for the work tasks.
- Adopt protocols to limit the sharing of tools and equipment and to ensure frequent and thorough cleaning and disinfection of tools, equipment and frequently touched surfaces.

Construction Industry – AEC Construction Services

In addition to the elements covered under Workplace Requirements and Health & Safety Measures, those departments whose work is in the construction industry must do the following:

- Conduct a daily entry screening protocol for employees, contractors, suppliers and any other individuals entering a worksite, including a questionnaire covering symptoms and suspected or confirmed exposure to people with possible COVID-19, together with, if possible, a temperature screening.
- Create dedicated entry points at every worksite, if possible, for daily screening or alternatively issue stickers or other indicators to employees to show that they received a screening before entering the worksite that day.
- Provide instructions for PPE distribution and designate on-site locations for soiled face coverings.
- Require the use of work gloves where appropriate to prevent skin contact with contaminated surfaces.
- Identify choke points and high-risk areas where employees must stand near one another and control their access and use so that social distancing is maintained.
- Ensure that there are sufficient hand-washing or hand-sanitizing stations at the worksite to enable easy access by employees.
- Restrict unnecessary movement between project sites.
- Create protocols for minimizing personal contact upon delivery of materials to the worksite.

Research Laboratories (U-M Research Enterprise)

In addition to the elements covered under Workplace Requirements and Health & Safety Measures, those departments whose work is in the research industry must do the following:

- Assign dedicated entry point(s) and/or times into lab buildings
- Conduct a daily entry screening protocol for employees, contractors, suppliers and any other individual entering a worksite including a questionnaire covering symptoms and suspected or confirmed exposure to people with possible COVID-19, together with, if possible, a temperature screening. Refer to COVID-19 Daily Screening Protocol for Research
● Create protocols and/or checklists as necessary to conform with COVID-19 preparedness and response plan. Refer to Facilities Checklist for details.
● Suspend all non-essential in-person visitors (including undergraduate students) until further notice.
● Establish and implement a plan for distributing face coverings.
● Limit the number of people per square feet of floor space permitted in a particular laboratory at one time.
● Close open workspaces, cafeterias, and conference rooms.
● As necessary, use tape on the floor to demarcate socially distanced workspaces and to create one-way traffic flow.
● Require all office and dry lab work to be conducted remotely.
● Minimize the use of shared equipment and share lab tools and create protocols for disinfecting lab equipment and lab tools. Refer to Cleaning and Disinfection Protocol for the Prevention of COVID-19 in U-M Laboratory Facilities.
● Provide disinfecting supplies and require employees to wipe down their work stations at least twice daily. A cleaning log should be maintained to document that this is completed and made available for review upon request by EHS during routine audits.
● The established protocols for positive COVID-19 employees will be followed, the laboratory leader if not the immediate supervisor, will be notified of the case as well. Refer to the Plan for Testing of Symptomatic Employees and Mandatory Contract Tracing for U-M Lab Contacts.

Refer to the U-M Research Reactivation Plan and the U-M Office of Research COVID-19 Research Reengagement website for specific plans in place in accordance with this document. Also refer to the Human Research Activation Tier Framework and Human Research Activation Tier Flowchart for specific information pertaining to reactivation of human subject research.

Offices

In addition to the elements covered under Workplace Requirements and Health & Safety Measures, those departments whose work is considered as office work must do the following:

● Assign dedicated entry point(s) for all employees to reduce congestion at the main entrance.
● Provide visual indicators of appropriate spacing for employees outside the building in case of congestion.
● Take steps to reduce entry congestion and to ensure the effectiveness of screening (e.g. by staggering start times, adopting a rotational schedule in only half of employees in the office at a particular time).
● Require face coverings in shared spaces, including during in-person meetings and in restrooms and hallways.
● Increasing distancing between employees by spreading out workspaces, staggering workspace usage, restricting non-essential common space, providing visual cues to guide movement and activity (e.g. restricting elevator capacity with markings, locking conference rooms).
● Prohibiting social gatherings and meetings that do not allow for social distancing or that create unnecessary movement through the office.
● Provide disinfecting supplies and require employees to wipe down their work stations at least twice daily.
● Post signs about the importance of personal hygiene. The CDC poster Stop the Spread of Germs can be used for this purpose.
● Disinfect high-touch surfaces in offices and minimize shared items when possible.
● Suspend all non-essential visitors.
Outpatient health-care facilities (University Health Services, Dental Offices. Mary A. Rackham Institute)

In addition to the elements covered under Workplace Requirements and Health & Safety Measures, those departments whose work is considered as outpatient clinical must do the following:

- Post signs at entrance(s) instructing patients to wear a face covering when inside.
- Limit waiting-area occupancy to the number of individuals who can be present while staying six feet away from one another and ask patients, if possible, to wait in cars for their appointment to be called.
- Mark waiting rooms to enable six feet of social distancing (e.g., by placing X’s on the ground and/or removing seats in the waiting room).
- Enable contactless sign-in (e.g., sign in on phone app) as soon as practicable.
- Add special hours for highly vulnerable patients, including the elderly and those with chronic conditions.
- Conduct a common screening protocol for all patients, including a temperature check and questions about COVID-19 symptoms.
- Place hand sanitizer and face coverings at patient entrance(s).
- Require employees to make proper use of personal protective equipment in accordance with guidance from the CDC and the U.S. Occupational Health and Safety Administration.
- Require patients to wear a face covering when in the facility, except as necessary for identification or to facilitate an examination or procedure.
- Install physical barriers at sign-in, temperature screening, or other service points that normally require personal interaction (e.g., plexiglass, cardboard, tables).
- Employ telehealth and telemedicine to the greatest extent possible.
- Limit the number of appointments to maintain social distancing and allow adequate time between appointments for cleaning.
- Employ specialized procedures for patients with high temperatures or respiratory symptoms (e.g., special entrances, having them wait in their car) to avoid exposing other patients in the waiting room.
- Deep clean examination rooms after patients with respiratory symptoms and clean rooms between all patients.
- Establish procedures for building disinfection in accordance with CDC guidance if it is suspected that an employee or patient has COVID-19 or if there is a confirmed case.

Retail Stores, Libraries and Museums

In addition to the elements covered under Workplace Requirements and Health & Safety Measures, those departments whose work is considered as office work must do the following:

- Create communication materials for customers to inform them of changes to store practices and to explain the precautions being taken to prevent infection.
- Establish lines to regulate entry with markings for patrons to enable them to stand at least six feet apart from one another while waiting. Other options to lines such as waiting in a car for a text message or phone call should be explored as well to accommodate crowding needs as well as seniors and those with disabilities.
- For stores, libraries and museums less than 50,000 square feet of patron floor space, must limit the number of people in the store (including employees) to 25% of the total occupancy established by State or local fire
marshal. Stores greater than 50,000 square feet must limit the number of customers in the store at one time (excluding employees) to 4 people per 1000 square feet of customer floor space and must create at least 2 hours per week of dedicated shopping time for vulnerable populations.

- Post signs requiring customers to wear face coverings and to not enter if they are or have recently been sick.
- Design spaces and store activities in a manner that encourages employees and customers to maintain six feet of distance from one another.
- Install physical barriers at checkout or other service points that require interaction, including Plexiglas barriers, tape markers or tables, as appropriate.
- Establish an enhanced cleaning and sanitizing protocol for high-touch areas like restrooms, credit card machines, keypads, counters, carts, and other surfaces.
- Train employees on appropriate cleaning procedures, including cashiers on cleaning between customers and how to manage symptomatic customers upon entry or in the store.
- Limit staffing the minimum number necessary to operate.

See the following links for additional guidance for Libraries and Museums for consideration.

**Sports and Entertainment Facilities (Including arenas, concert halls, performance venues, sporting venues, stadiums and theaters)**

In addition to the elements covered under Workplace Requirements and Health & Safety Measures, these facilities will also need the following in place:

- Abide by the current State of Michigan Executive Order which does not yet allow this activity in our region.
- Post signs requiring customers to wear face coverings (for indoor venues) and to not enter if they are or have recently been sick.
- Establish crowd-limiting measures to meter the flow of patrons and use physical dividers, marked floors, signs, and other physical and visual cues to maintain six feet of distance between persons.
- Limit seating occupancy to the extent necessary to enable patrons not of the same household to maintain six feet of social distance from others.
- For sports and entertainment facilities, establish safe exit procedures for patrons and adopt specified entry/exit times for vulnerable populations as well as specified entrances and exits.
- Train ushers on how to monitor and enforce compliance with the facilities COVID-19 protocols and help patrons who become symptomatic.
- Frequently disinfect, high-touch surfaces during events or as necessary throughout the day.
- Disinfect and deep clean the facility after each event or as necessary throughout the day.
- Close self-serve food or drink options.

**Gymnasiums, fitness centers, recreation centers, sports facilities, exercise facilities/studios**

The In addition to the elements covered under Workplace Requirements and Health & Safety Measures, these facilities will also need the following in place:
• Abide by the current State of Michigan Executive Order which does not yet allow this activity in our region.
• Post signs informing individuals to not enter if they are or have recently been sick.
• Maintain accurate records, including date and time of event, name of attendee(s), and contact information, to aid with contact tracing.
• To the extent feasible, configure workout stations or implement protocols to enable ten feet of distance between individuals during exercise session (or six feet of distance with barriers).
• Reduce class sizes, as necessary, to enable at least six feet of separation between individuals.
• Provide equipment cleaning products throughout the gym or exercise facility for use on equipment.
• Make hand sanitizer, disinfecting wipes, soap and water, or similar disinfectant readily available.
• Regularly disinfect exercise equipment, including immediately after use. If patrons are expected to disinfect, post signs encouraging disinfection.
• Ensure that ventilation systems operate properly.
• Increase introduction and circulation of outdoor air as much as possible by opening windows and doors, using fans, or other methods.
• Regularly clean and disinfect public area, locker rooms and restrooms
• Close steam rooms and saunas.

See the following link for additional guidance for Gyms and Workout Facilities.

Child Care Centers

Childcare centers can take clear actions to operate a safe center through efforts focused on prevention, early detection, and control of COVID-19. The MDHHS has several documents for childcare centers: MDHHS Childcare Symptoms Monitoring Protocol during COVID-19 Response and MDHHS Cleaning and Disinfecting of Childcare Environments During COVID-19 Response. The CDC has extensive guidance for day care centers as well. Also reference the following link for additional guidance for Child Care Centers.
Appendix A: Classifying Worker Exposure to SARS-CoV-2

Worker risk of occupational exposure to SARS-CoV-2, the virus that causes COVID-19, during an outbreak may vary from very high to high, medium, or lower (caution) risk. The level of risk depends in part on the type of work conducted, need for contact within 6 feet of people known to be, or suspected of being, infected with SARS-CoV-2, or requirement for repeated or extended contact with persons known to be, or suspected of being, infected with SARS-CoV-2.

OSHA has divided job tasks into four risk exposure levels: very high, high, medium, and lower risk. Most American workers will likely fall in the lower exposure risk (caution) or medium exposure risk levels.

**Occupational Risk Pyramid for COVID-19**

Very High Exposure Risk

Very high exposure risk jobs are those with high potential for exposure to known or suspected sources of COVID-19 during specific medical, postmortem, or laboratory procedures. Workers in this category include:

- Healthcare workers (e.g., doctors, nurses, dentists, paramedics, emergency medical technicians) performing aerosol-generating procedures (e.g., intubation, cough induction procedures, bronchoscopies, some dental procedures and exams, or invasive specimen collection) on known or suspected COVID-19 patients.
- Healthcare or laboratory personnel collecting or handling specimens from known or suspected COVID-19 patients (e.g., manipulating cultures from known or suspected COVID-19 patients).
- Morgue workers performing autopsies, which generally involve aerosol-generating procedures, on the bodies of people who are known to have, or suspected of having, COVID-19 at the time of their death.

High Exposure Risk

High exposure risk jobs are those with high potential for exposure to known or suspected sources of COVID-19. Workers in this category include:

- Healthcare delivery and support staff (e.g., doctors, nurses, and other hospital staff who must enter patients’ rooms) exposed to known or suspected COVID-19 patients. (Note: when such workers perform aerosol-generating procedures, their exposure risk level becomes very high.)
- Medical transport workers (e.g., ambulance vehicle operators) moving known or suspected COVID-19 patients in enclosed vehicles.
Mortuary workers involved in preparing (e.g., for burial or cremation) the bodies of people who are known to have, or suspected of having, COVID-19 at the time of their death.

**Medium Exposure Risk**

Medium exposure risk jobs include those that require frequent and/or close contact with (i.e., within 6 feet of) people who may be infected with SARS-CoV-2, but who are not known or suspected COVID-19 patients. In areas where there is ongoing community transmission, workers in this category may have frequent close contact with the general public.

**Lower Exposure Risk (Caution)**

Lower exposure risk (caution) jobs are those that do not require contact with people known to be, or suspected of being, infected with SARS-CoV-2 nor frequent close contact with (i.e., within 6 feet of) the general public. Workers in this category have minimal occupational contact with the public and other coworkers.

**Jobs Classified at Lower Exposure Risk (Caution): What to Do to Protect Workers**

**Engineering Controls**

Additional engineering controls are not recommended for workers in the lower exposure risk group. Employers should ensure that engineering controls, if any, used to protect workers from other job hazards continue to function as intended.

**Administrative Controls**

- Monitor public health communications about COVID-19 recommendations and ensure that workers have access to that information. Frequently check the CDC COVID-19 website: www.cdc.gov/coronavirus/2019-ncov.
- Collaborate with workers to designate effective means of communicating important COVID-19 information.

**Personal Protective Equipment**

Additional PPE is not recommended for workers in the lower exposure risk group. Workers should continue to use the PPE, if any, that they would ordinarily use for other job tasks. Per the State of Michigan Executive Order 2020-59 and subsequent orders, employees will be provided a cloth face covering for mandatory use when in enclosed public areas.

All types of PPE are to be:

- Selected based upon the hazard to the worker.
- Properly fitted and periodically refitted as applicable.
- Consistently and properly worn when required.
- Regularly inspected, maintained, and replaced, as necessary.
- Properly removed, cleaned, and stored or disposed of, as applicable, to avoid contamination of self, others, or the environment.
Jobs Classified at Medium Exposure Risk: What to Do to Protect Workers

Engineering Controls

● Install physical barriers, such as clear plastic sneeze guards, where feasible.

Administrative Controls

● Consider offering face masks to ill employees and patients to contain respiratory secretions until they are able leave the workplace (i.e., for medical evaluation/care or to return home). In the event of a shortage of masks, a reusable face shield that can be decontaminated may be an acceptable method of protecting against droplet transmission.
● Where appropriate, limit public access to the worksite, or restrict access to only certain workplace areas.
● Consider strategies to minimize face-to-face contact (e.g., phone-based communication, telework).
● Communicate the availability of medical screening or other worker health resources (e.g., on-site nurse; telemedicine services).

Personal Protective Equipment (PPE)

Workers with medium exposure risk may need to wear some combination of gloves, a gown, a face mask, and/or a face shield or goggles. PPE ensembles for workers in the medium exposure risk category will vary by work task, the results of the employer’s hazard assessment, and the types of exposures workers have on the job.

In rare situations that would require workers in this risk category to use respirators, see the PPE section which provides more details about respirators.

All types of PPE are to be:

● Selected based upon the hazard to the worker.
● Properly fitted and periodically refitted as applicable.
● Consistently and properly worn when required.
● Regularly inspected, maintained, and replaced, as necessary.
● Properly removed, cleaned, and stored or disposed of, as applicable, to avoid contamination of self, others, or the environment.

Jobs Classified at High or Very High Exposure Risk: What to Do to Protect Workers

Engineering Controls

● Ensure appropriate air-handling systems are installed and maintained in healthcare facilities. See “Guidelines for Environmental Infection Control in Healthcare Facilities” for more recommendations on air handling systems.
● CDC recommends that patients with known or suspected COVID-19 (i.e., person under investigation) should be placed in an airborne infection isolation room (AIIR), if available.
● Use isolation rooms when available for performing aerosol-generating procedures on patients with known or suspected COVID-19. For postmortem activities, use autopsy suites or other similar isolation facilities when performing aerosol-generating procedures on the bodies of people who are known to have, or suspected of having, COVID-19 at the time of their death. See the CDC postmortem guidance at:
OSHA also provides guidance for postmortem activities on its COVID-19 webpage: www.osha.gov/covid-19.

- Use special precautions associated with Biosafety Level 3 when handling specimens from known or suspected COVID-19 patients.

**Administrative Controls**

If working in a healthcare facility, follow existing guidelines and facility standards of practice for identifying and isolating infected individuals and for protecting workers.

- Develop and implement policies that reduce exposure, such as cohorting (i.e., grouping) COVID-19 patients when single rooms are not available.
- Post signs requesting patients and family members to immediately report symptoms of respiratory illness on arrival at the healthcare facility and use disposable face masks.
- Consider offering enhanced medical monitoring of workers during COVID-19 outbreaks.
- Provide all workers with job-specific education and training on preventing transmission of COVID-19, including initial and routine/refresher training.
- Ensure that psychological and behavioral support is available to address employee stress.

**Safe Work Practices**

- Provide emergency responders and other essential personnel who may be exposed while working away from fixed facilities with alcohol-based hand rubs containing at least 60% alcohol for decontamination in the field.

**Personal Protective Equipment (PPE)**

Most workers at high or very high exposure risk likely need to wear gloves, a gown, a face shield or goggles, and either a face mask or a respirator, depending on their job tasks and exposure risks.

Those who work closely with (either in contact with or within 6 feet of) patients known to be, or suspected of being, infected with SARS-CoV-2, the virus that causes COVID-19, should wear respirators. In these instances, see the PPE section of this plan, which provides more details about respirators.

PPE ensembles may vary, especially for workers in laboratories or morgue/mortuary facilities who may need additional protection against blood, body fluids, chemicals, and other materials to which they may be exposed. Additional PPE may include medical/surgical gowns, fluid-resistant coveralls, aprons, or other disposable or reusable protective clothing. Gowns should be large enough to cover the areas requiring protection.

NOTE: Workers who dispose of PPE and other infectious waste must also be trained and provided with appropriate PPE.

The CDC webpage “Healthcare-associated Infections” (www.cdc.gov/hai) provides additional information on infection control in healthcare facilities.

**Job Duties Affect Workers’ Exposure Risk Levels**
As workers’ job duties change or they perform different tasks in the course of their duties, they may move from one exposure risk level to another. Additional examples of workers who may have increased risk of exposure to SARS-CoV-2 include those in:

- Other types of healthcare positions (including pre-hospital and medical transport workers, allied medical care professionals, and support staff)
- Emergency response (e.g., emergency medical services workers, firefighters, and law enforcement officers)
- Research or production laboratory workers
- Solid waste and wastewater management
- Environmental (i.e., janitorial) services
- Residential repair services
- Social, or public health workers in jobs requiring contact with community members who may spread the virus
- Transit and delivery drivers, depending on their degree of close contacts with the public

EHS is available to assist in reviewing job tasks and recommending additional measures that can be put into place to mitigate exposure to SARS-CoV-2.
Appendix B: Workplace control examples

Occupational safety and health professionals use a framework called the “hierarchy of controls” to select ways of controlling workplace hazards. In other words, the best way to control a hazard is to systematically remove it from the workplace, rather than relying on workers to reduce their exposure.

During a COVID-19 outbreak, when it may not be possible to eliminate the hazard, the most effective protection measures are (listed from most effective to least effective): engineering controls, administrative controls, safe work practices (a type of administrative control), and PPE. There are advantages and disadvantages to each type of control measure when considering the ease of implementation, effectiveness, and cost. In most cases, a combination of control measures will be necessary to protect workers from exposure to SARS-CoV-2.

Engineering Controls

Engineering controls involve isolating employees from work-related hazards. In workplaces where they are appropriate, these types of controls reduce exposure to hazards without relying on worker behavior and can be the most cost-effective solution to implement. Engineering controls for SARS-CoV-2 include:

- Increasing ventilation rates in the work environment.
- Installing physical barriers, such as clear plastic sneeze guards.
- Specialized negative pressure ventilation in some settings, such as for aerosol generating procedures (e.g., airborne infection isolation rooms in healthcare settings).

Examples of engineering controls implemented on campus include the following:

- Bus Partitions to create a physical barrier of separation of 6 feet between the bus driver and passengers
- Isolation rooms that provide one-pass air to reduce the need for higher level PPE in the general room area.
- Experimental helmet apparatus for COVID patient use to provide HEPA exhausted enclosure around the patient to eliminate need for upgraded PPE during certain procedures.

Administrative Controls

Administrative controls require action by the worker or employer. Typically, administrative controls are changes in work policy or procedures to reduce or minimize exposure to a hazard. Administrative controls for SARS-CoV-2 include:

- Minimizing contact among workers by replacing face-to-face meetings with virtual communications and implementing telework, if feasible.
- Establishing alternating days or extra shifts that reduce the total number of employees in a facility at a given time, allowing them to maintain distance from one another while maintaining a full onsite work week.
- Developing emergency communications plans, including a forum for answering workers’ concerns and internet-based communications, if feasible.
- Providing workers with up-to-date education and training on COVID-19 risk factors and protective behaviors (e.g., cough etiquette and care of PPE).
- Training workers who need to use protecting clothing and equipment how to put it on, use/wear it, and take it off correctly, including in the context of their current and potential duties. Training material should be easy to understand and available in the appropriate language and literacy level for all workers.

Safe Work Practices
Safe work practices are types of administrative controls that include procedures for safe and proper work used to reduce the duration, frequency, or intensity of exposure to a hazard. Safe work practices for SARS-CoV-2 include:

- Providing resources and a work environment that promotes personal hygiene. For example, provide tissues, no-touch trash cans, hand soap, alcohol-based hand rubs containing at least 60 percent alcohol, disinfectants, and disposable towels for workers to clean their work surfaces.
- Requiring regular hand washing or using of alcohol-based hand rubs. Workers should always wash hands when they are visibly soiled and after removing any PPE.
- Post handwashing signs in restrooms.
- Practicing social distancing.

**Personal Protective Equipment (PPE)**

While engineering and administrative controls are considered more effective in minimizing exposure to SARS-CoV-2, PPE may also be needed to prevent certain exposures. While correctly using PPE can help prevent some exposures, it should not take the place of other prevention strategies.

Examples of PPE include: gloves, goggles, face shields, face masks, and respiratory protection, when appropriate. During an outbreak of an infectious disease, such as COVID-19, recommendations for PPE specific to occupations or job tasks may change depending on geographic location, updated risk assessments for workers, and information on PPE effectiveness in preventing the spread of COVID-19.

The University of Michigan Personal Protection Equipment Program provides additional detail regarding hazard assessment, selection, maintenance and use of required PPE.

Employers are obligated to provide their workers with PPE needed to keep them safe while performing their jobs. The types of PPE required during a COVID-19 outbreak will be based on the risk of being infected with SARS-CoV-2 while working and job tasks that may lead to exposure.

**Current required respirator usage for COVID-19 protection on Campus:**

- Workers, including those who work within 6 feet of patients known to be, or suspected of being, infected with SARS-CoV-2 and those performing aerosol-generating procedures, need to use respirators that are National Institute for Occupational Safety and Health (NIOSH)-approved, N95 filtering facepiece respirators or better and follow the University of Michigan Respiratory Protection Plan. Respirators must be used in the context of a comprehensive, written respiratory protection program that includes fit-testing, training, and medical exams. Surgical N95 respirator will be used when both respiratory protection and resistance to blood and body fluids is needed.
- N95 filtering facepiece respirators are required for DPSS transport of suspected COVID-19 individuals.
- PAPRs may be required to be worn by Hospital maintenance personnel if entering a room with a known or suspected to be COVID-19 patient during or within one hour of an aerosolization procedure.
- N95 respirators are worn during COVID-19 research if work may generate aerosols or other risk of exposure.
- Face shields may also be worn on top of a respirator to prevent bulk contamination of the respirator.
## Appendix C: Record of Significant Updates

<table>
<thead>
<tr>
<th>Date</th>
<th>Additions/Modifications</th>
</tr>
</thead>
</table>
| 6/22/20 | • Added Appendix C to track changes  
               • Added UM Health Screen URL  
               • Added EHS Hand Sanitizer Guidance, Stairway Guidance, and Water Quality document  
               • Added Training Link for Human Subject Research and Link to Tiers under Research section  
               • Added a link for Risk Assessment Document  
               • Added UM Maize and BluePrint website. |
| 6/23/20 | • Updated info on signage and corrected broken links, errors |
| 6/29/20 | • Removed intro language about virus origins  
               • Added links to supplement info on daycare, gyms, libraries, museums, etc.  
               • Added links for human subject research |