

Return to Work Policies and Procedures for the Chemistry Building

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Appendices: Building Contacts (p. 20), Shared Laboratories (p. 21)

Introduction

This document has been developed by the Chair of Chemistry and the Chemistry Safety Committee to enable a return of personnel to conduct maintenance and research activities in the Chemistry building while there is still a risk of contracting the virus causing COVID-19 from co-workers. The protocols described in the following might change or be reversed, as required according to the ongoing situation.

Activities in all laboratories of the Chemistry building are limited to those that require physical access to the facilities and instrumentation. No one will be compelled to come to work on site as long as there is a risk of contracting the virus causing COVID-19 from co-workers. MSU prohibits coercion of students and other vulnerable groups to report to campus to maintain support from graduate assistantships or postdoctoral fellowships.

This document does not apply to research at other locations at MSU. Separate guidelines and policies for field sites will need to be developed in coordination with the appropriate administrators of those facilities.

Compliance and Compliance Monitoring

1. Questions about this document can be directed to the Chair of Chemistry or to the Chemistry Safety Committee.
2. The Chair and the Chemistry PIs are responsible for compliance with the rules in this document. To ensure compliance, the Chair will consult with the PIs of all laboratories on a regular basis to review the sign in/out records for each group and to conduct periodic laboratory visits.
3. As noted below, each worker in the Chemistry building is expected to follow the posted regulations and to help others to follow them. Non-compliance should be reported to the PI of a laboratory and then to the Chemistry Safety Committee and the Chair of Chemistry.

Guiding Principles

The guiding principles of these Policies and Procedures include the following:

1. The building has remained operational during the shutdown, equipment has been routinely monitored and repaired as needed by essential personnel, and in principle, the building is ready for resumption of work following inspections by IPF and EHS. It is understood that the restrooms and common areas will be cleaned daily by the custodial staff in addition to measures described below upon return to work.
2. At no time is research with the active virus causing COVID-19 to be conducted in the Chemistry building.

3. The risk of going back to work in the lab with other colleagues includes contracting the virus causing COVID-19 from another contagious person by aerosol or contaminated surfaces. It should be kept in mind that a contagious person may not exhibit symptoms.
4. The main idea behind the new rules and regulations is to maintain social distancing (generally at least 6 feet separation between individuals) to slow the spread of the virus.
5. Precautions need to be added on top of existing lab safety protocols and the new precautions do not supersede them.
6. All research activities should be planned to enable a quick return to the pre-activation state should a resurgence of infections occur or an absence of required personal protective equipment be observed.
7. There will be no retaliation against individuals who choose to stay home to avoid exposure to the virus causing COVID-19.
8. Further, there will be no retaliation against individuals who have to leave work because they are at risk of infecting others with the virus causing COVID-19.
9. Training on the new policies and procedures is required for all those returning to work, and building access may not be granted until training has been documented. At a minimum, everyone must acknowledge reading this document, which will also be explained by the Chair and Safety Committee during a virtual town hall meeting before researchers can return to work. The town hall meeting was recorded and is accessible from the Chemistry website.
10. This protocol will remain binding until the MSU Office of Regulatory Affairs (ORA) or the Office of the Senior Vice President for Research and Innovation (OSVPRI) allow for or require modifications. Changes to this protocol will be widely distributed to all building occupants and their supervisors by email and for retrieval from the Chemistry website. Postings of new regulations will be made at the entrances of the building and on the Chemistry website.

Building preparation and Access

1. **Building Preparation:** The Chemistry building has been monitored daily by essential workers and technicians and issues during the shutdown have been resolved in collaboration with Infrastructure Planning and Facilities/Facilities Planning (IPF) as they arose. As necessary, the building will be prepared by IPF and Space Management/Environmental Health and Safety (EHS) to ensure that it is clean and functioning appropriately. Water and HVAC systems and fume hoods will be checked (according to maintenance schedule). Biosafety cabinets and autoclaves will be checked by labs/building managers and will be recertified as needed. The building will remain locked and access controlled.
2. **Building Access:** Access is limited to only those faculty, staff and students who have been trained and acknowledge the policies and procedures in this document. Access and presence in the building is monitored using an online MSU Health Form available on the Chemistry homepage. Access may be

revoked by the Chair of Chemistry for anyone found to be in deliberate violation of policies and procedures.

3. **Non-resident visitors:** Anyone lacking keycard access to the Chemistry building but needing access to core facilities are required to contact the Chair of Chemistry in advance to receive a copy of the new policies and procedures. The Chemistry building manager will arrange for access to the building and facilities. All visitors are expected to adhere to the policy and procedures in this document while in the building.
4. **Deliveries:** Instructions for delivery personnel (MSU, UPS, FedEx etc.), including a phone number to reach Chemistry receiving personnel, are posted at the Chemistry building's loading dock.
5. **Outside Contractors: Work in the Chemistry building must be pre-approved by the Department Chair, Brenda Minott (Departmental Administrator), Bob Rasico (Building Manager), or IPF.** Work will be scheduled and coordinated by Bob Rasico, who will admit MSU-approved contractors to the building and provide instruction on the basic protocols of hand sanitizing and wearing masks, etc. Masks will be provided if necessary. The designated work area will be cleared of lab personnel to maintain social distancing of 6 feet. Mr. Rasico or a designated Chemistry staff member will log the entry and exit by the contractors.

Personal Protective Equipment (PPE) and Sanitizing Measures

Protection of personnel begins at the entrances to the building:

1. Frequent hand washing and avoiding touching one's face is recommended by the US Center for Disease Control (CDC) to avoid infection, and MSU follows these recommendations. Hands must be cleaned upon entering the building using this sanitizer and washed first thing when entering the lab space using soap and water for 20 s. Hands should be washed at regular intervals during the work period to minimize the potential infection.
2. **Masks that cover mouth and nose MUST be worn by all individuals entering the Chemistry building, in all public spaces (e.g. hallways, stairways, etc.), labs, and in all rooms occupied by more than one person.** (A covering is not required when an occupant is alone in a private setting with the door closed.)
3. MSU will provide a cloth mask to every employee. You can also bring your own cloth mask. Cloth masks can be taken home and washed in a washing machine with soap and the hottest appropriate water temperature setting. They should be machine dried completely and at the highest heat setting. These masks will not be laundered at MSU laundry.
4. Disposable masks will be available for purchase in the Chemistry stockroom. It is suggested that PIs maintain a small supply of these in their labs. These masks should be discarded after use.
5. Safety glasses (or your own glasses) must be worn at all times while in the building. Extra safety glasses are available in the stockroom.

Training and Sanitation

1. Representatives of the Safety Committee will communicate to the Department the rules and regulations described in this document.
2. EHS has prepared a training course, [COVID-19 Safe Return to Laboratory Work](#), which needs to be completed by all Chemistry personnel.
3. MSU custodial services will sanitize common areas at least once a day. IPF Custodial Services will be making cleaning solution and spray bottles available to permit occupants to clean their own workspaces.
4. Personnel from individual research groups are responsible for sanitization of their own laboratory spaces.

General Practices and Frequently Asked Questions

1. All on-site participants in the Department of Chemistry are required to adhere to all the required principles and practices outlined by the state, university, and Department.
2. In addition, all health and safety regulations, procedures, and requirements that were in place prior to the cessation of research activities must still be maintained at all times, with no exceptions.
3. Failure to comply with any of the listed requirements may result in exclusion of individuals or entire research groups from research in the Chemistry building until the COVID19-related restrictions are lifted.

What work can be done in the Chemistry building?

1. On-site work is restricted to work that requires access to facilities and instrumentation in the Chemistry building. In the Department of Chemistry, this includes research that must be performed in the laboratory to access required equipment or instrumentation.
2. In general, access to the Chemistry building should be planned and scheduled to spend the minimum amount of time on site required to accomplish the work.
3. All work that is possible to accomplish off site must remain off site.
4. In most cases use of offices should be limited to storage of personal items that should not be in a laboratory.

Who can work in the Chemistry building?

1. Faculty, graduate students, postdocs, and staff performing work that requires being on site will be allowed to work in the Chemistry building after official approval by the University and by the Chemistry Safety Committee.
2. Undergraduate researchers are allowed in the Chemistry building to take in-person classes and to do independent research. PI's must get prior approval for undergraduates doing independent research. Please review the [memo outlining the criteria](#). The approval process begins with completion and submission of the [request form](#).

Who can be required to work in the Chemistry building?

1. NO ONE will be required to work in the Chemistry building.
2. Students and postdocs may choose not to participate on site.
3. Research advisors and supervisors will not coerce or pressure any trainees to work on site.
4. No explanation is necessary for the decision not to work on site.

How will work be restarted in the Chemistry building?

1. The PI or staff supervisor are required to submit a *Laboratory Plans for a Safe Return* document to the Chemistry Safety Committee. A full set of instructions is located at the top of the template (please follow them in order).
2. The template includes:
 - a. The research faculty advisor or staff supervisor.
 - b. All of the spaces assigned to the advisor/supervisor that will be in use.
 - c. The members of the research group that will be participating on site.
 - d. The content for the two text boxes required on the University application for return authorization. The template has additional instructions in each section.
 - e. If you expect shared use of any of laboratory by researchers that are not listed as part of your research group, this use should be indicated with a clear statement that they will be informed and required to follow all Chemistry building and laboratory procedures.
3. Facilities and staff will be handled independently, starting with submission of a full operations plan by the supervisor and/or facilities director to the Chair of Chemistry.

Social Distancing

1. Workers should restrict their access to areas in the Chemistry building that are required for their work.
2. Wearing masks is required in all public spaces and in spaces occupied by more than one person.
3. All on-site workers must maintain a minimum of 6 feet of separation at all times.
4. This principle will be enforced by specifying work areas within laboratories for access by a single researcher at a time.
5. If social distancing prevents more than one individual in a laboratory at a time, but the normal safety rules forbid working alone in the laboratory, researchers are required to maintain contact with another researcher either through an optically transparent barrier, such as a window, or periodically by the use of mobile phones.
6. Every research group must submit an individual plan outlining how social distancing will be maintained during operations in all of their research group spaces.

7. All meetings will take place remotely, using Zoom or another teleconferencing tool, with no exceptions.
8. In-person conversations will be avoided.

Questions about the rules in this protocol or concerns about compliance by others?

1. You should report your concerns to your immediate supervisor, and for many this will be the faculty research advisor.
2. If you are not comfortable reporting your concerns to your immediate supervisor, you should report it to the Chair of Chemistry and/or to the Safety Committee.

Preparation for Working in the Laboratory in the Chemistry Building

1. To prevent new virus infections, awareness is key:
 - a. Always maintain physical distances of 6 ft or more between co-workers.
 - b. Maintain physical distances between all people coming to and from work.
 - c. Monitor your health (temperature, etc.).
 - d. Wear relevant masks, safety glasses, and/or the additional required PPE at all times.
 - e. Each person must enter the building using their own key card.
2. File the **MSU Health Form** before going to the building. The updated health forms can be found on the OSVRI corona virus website (<https://vp.research.msu.edu/coronavirus>) or on the [Chemistry home page](#).
3. Should someone in your research group or in groups that share equipment or space have symptoms, test positive for COVID-19, or are known to have had contact (within 6 ft for >15 minutes over a 24 hour period) with a COVID-19 positive individual, immediately notify your research advisor or supervisor. You are also encouraged to contact the [University Physician](#) (email: HT.umphys@msu.edu) to provide as much information as known at the time. Supervisors should notify the Chair of Chemistry, who will then notify the [University Physician](#) and EHS. The laboratory will need to be properly cleaned and disinfected. Personnel who are ill **MUST** stay at home.
4. Minimize the transport of items between work and home.
 - a. Leave most personal items at home (including headphones, ear buds etc.). Only essential items should be brought into the laboratory (e.g. drinking water, card key, wallet, phone).
 - b. Avoid bringing your computer to work. Disinfect a shared computer in the lab before and after use by wiping it down with 70% ethanol or isopropanol solution.

Building Access

1. The Chemistry building will remain locked and restricted to card-key access.
2. If you have received approval to work on site, you will have card-key access.

3. The card-key access system also provides a log of entry to the building. Every individual must swipe their card-key when entering the building.
4. For example, if you happen to arrive with other students or staff, you should not hold the door for them. Each of you must enter separately and swipe your cards.

Common Spaces in Chemistry and Shared Laboratory Space

1. Common spaces, not in specific laboratories, will be cleaned and decontaminated by custodial services once per day according to their protocols using a germicidal cleaner.
2. Cleaning and disinfection of shared rooms and facilities assigned to a particular research group must be carried out by the personnel responsible for those areas a minimum of two times per shift.
3. Laboratory space and the included facilities and instrumentation assigned to a particular research group will be cleaned and sanitized on a regular basis, usually before and after each user, as described in the standard operating procedures outlined in the "Laboratory Plan for a Safe Return" document for the coordinating group. Cleaning logs, noting the date of cleaning and the responsible individual carrying it out, should be maintained for each shared lab, common space, or shared equipment or instrument. In many cases, the laboratory surfaces and instruments can be sanitized with 70% ethanol or isopropanol, but the coordinating group will provide the required supplies and post the procedure to be used.
4. The EPA has a list of approved disinfectants for use against COVID-19 (<https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>) including:
 - a. 70% ethanol or isopropanol: apply and maintain wet for 5 minutes; ensure that the wet contact time is maintained as the alcohol evaporates.
 - b. 10% bleach: make fresh solutions daily; apply and maintain wet for 10 minutes. Ensure that use is within 24 hours after making the solution.
 - c. **Portion-Pac**: Prepared by custodial and available on the 4th floor. Apply and maintain wet for 5 minutes; ensure that the wet contact time is maintained as the solution evaporates. Like all disinfectants Portion-Pac must be properly formulated. Mistakes in formulation can happen. Below are photos of how properly formulated Portion-Pac solution should appear (left) and how solution that is too dilute may appear (right).



Note: We should not expect MSU, EHS, or ORA to broadly share information on problems of this sort. Please report any suspicious material to the Department Chair, the Safety Committee Chair, or any of the building contacts indicated at the end of this document.

- d. [Sani-Cloth® Germicidal Disposable Cloths](#): apply and maintain wet for 3 minutes, then dispose of the wipe appropriately.
 - e. [Cavicide™](#): ready to use within the expiration date; apply and maintain wet for 3 minutes. At the end of each day, trash bags should be tied off and placed in the hallway for easy removal by custodial staff without having to enter a particular laboratory space.
5. The MSU Work Alone Policy must be followed. Attention must also be paid to personal safety if work is carried out in a sparsely populated building.

Hallways

1. The majority of the hallways in Chemistry are 6 feet or wider, so it should be possible to maintain 6 feet of separation at all times.
2. For narrow hallways, single direction use should be observed. If there is already someone coming in the opposite direction, you will have to wait.
3. Hallways should be used for transit between spaces only. Do not congregate or stop to talk with others, even when maintaining distance.

Elevators

1. Elevator use should be restricted to those who need them for a required work purpose, such as transporting chemicals, or for physical or health reasons.
2. All other floor-to-floor access should use the stairs.
3. Signs are posted to indicate that all elevators in Chemistry are designated for a maximum occupancy of two, with tape indicating where occupants should stand so as to maintain a safe social distance.

Stairwells

1. Except in emergencies, the narrow stairwells at the East and West ends of Chemistry and at the ends of the Chemistry Annex (front section) are designated for use in one direction only (up or down).
2. Signs are posted to indicate the direction for use of the East and West stairwells.
3. West stairwells (main building and annex) should be used to go down. East stairwells (main building and annex) should be used to go up.
4. The front center stairwell of the building can be used in both directions. One should still avoid encounters with other people by waiting well to the side at landings to avoid close contact.

Restrooms

1. All restrooms in Chemistry are designated for single occupancy use only.

2. The restroom door should be blocked open upon leaving.
3. If the restroom door is open when you arrive, you may enter.
4. Close the restroom door prior to using the facilities.
5. Hands must be washed with soap and water as the last thing before exiting the bathroom.

Conference Rooms

1. Conference rooms are closed and are not available for use.
2. Use of conference rooms for teaching or other purposes will require prior authorization from the Chair of Chemistry and the Chemistry Safety Committee.

Food & Drink on site

1. Food and drink can only be consumed in the Chemistry building in a **private office space with the door closed** or in a **room designated for a particular research group's use** by the PI. Microwave ovens and refrigerators can be used if they are available in the designated space.
2. **The PI is expected to revise the "Safe Return" laboratory protocol** for their group to indicate which room(s) are designated for consumption of food or drink. The use of refrigerators and/or microwave ovens should also be designated. The rules set by the PI should describe the room scheduling protocol, the number of people allowed in a room with safe distancing and mask requirements, the use of refrigerators and microwave ovens, and the sanitization protocols. The revised laboratory protocol will not be reviewed, but the PI should keep it updated to indicate changes in protocol.
3. **Conference rooms and other common spaces in Chemistry will not be used for consumption of food or drink.** The Chemistry building policy forbidding use of conference rooms except under specific conditions approved by the Chair of Chemistry is to be continued.

In summary: food and drink is now allowed in the Chemistry building if you have a private office with a door or in a lab or room designated by a particular research group's PI. You are not allowed to use any common space for eating, and in particular the rule prohibiting use of conference rooms is continued. The rules for mask use and safe distancing have to be kept in place.

Decontamination of hands, surfaces and work areas

1. Washing your hands with soap and water for at least 20 seconds is the best method against viral contamination and should always be used when possible ([CDC guidelines for washing hands](#)).
2. Hand sanitizer solutions can be used when soap and water is not an option.
3. All researchers will wash their hands with soap and water upon arrival in the building and immediately prior to departure.

4. All researchers will wash their hands with soap and water as often as it is practical while on site.
5. Surfaces should be cleaned before and after each individual user of a given workstation or instrument, if possible.
6. An appropriate amount of time between scheduled use of work spaces must be provided to allow for decontamination of the space. This will vary depending on the nature of the work space, but schedules that do not provide time for decontamination between shifts are not allowed.
7. It is recommended that some type of visible check-out record or indicator be implemented to indicate that a particular work space was decontaminated after the last use. This will serve as a reminder that decontamination procedures have to be performed after use of a given area and as a confirmation for the next user.
8. Hand sanitizer and cleaning solutions are available through the chemistry stockroom. These are intended for on-site use only. They should not be taken off-site.
9. Additional information: [A Chemist's Guide to Disinfectants](#) (American Chemical Society)

Face masks

1. Face covering (masks), such as cloth are considered part of your minimum personal attire.
2. Please consult the [CDC guidelines and instruction](#) on cloth face mask use.
3. Face masks are required at all times in all areas in Chemistry.
4. **All standard laboratory PPE requirements still apply and always take precedence.**
5. Be sure your face mask fits securely and comfortably before coming in to work.
6. If you need to adjust the face mask, take off any laboratory gloves, wash your hands, and leave the room if others are nearby.
7. In research laboratories:
 - a. Think of face masks in the same category as long pants and closed-toe shoes, they are required personal attire that should not interfere with any required PPE or create any additional safety hazards.
 - b. Just like any article of clothing or part of your personal attire, if a face mask becomes contaminated by laboratory chemicals it should be disposed of as hazardous waste.
 - c. It is recognized that research, particularly training, may at times require individuals to be within 6 ft of each other. All reasonable efforts are to be made to avoid such situations, but if unavoidable a full face-shield, in addition to a mask, is recommended. It is highly preferable if such sessions last <15 minutes.
8. Masks will be available through the chemistry stockroom.
9. Medical grade N95 masks should be reserved for medical professionals.

Doors and Signage

1. Doors to labs and offices should never be propped open.
2. Building air balance is important to the proper functioning of chemical hoods and proper air exchange. This would be affected by propping open doors.
3. Laboratories are not generally spaces that are safe to allow uncontrolled entry.
4. Fire codes include closed doors.
5. Signs will be posted on the doors of all spaces where active work is taking place.

Employee Self-Screening for those Working On Site

1. Take your temperature in the morning before you come to work and when you return home from work. Log those results and report any fever greater than 100.4 F to your supervisor.
2. Do not report to work on site if you have symptoms of COVID-19, including a temperature greater than 100.4 F.
3. If you have symptoms or have tested positive for COVID-19 or if you have had contact with COVID-19 positive individuals (within 6 ft for >15 minutes over a 24 hour period) with a COVID-19 positive individual immediately notify your supervisor. You are also encouraged to notify the [University Physician](#) (email: HT.uphys@msu.edu).
4. If the employee indicates any of these conditions, the supervisor must require that the employee stay home, and the employee should seek guidance from their healthcare provider.

Chemistry Facilities

Chemistry Department Main Office

Chemistry Main Office staff will work remotely until the COVID-19 virus is contained, or until MSU mandates a return to in-person, on-campus work for administrative staff. If Chemistry needs arise where a staff member must visit the building in-person, this individual will be required to adhere to all related safety expectations outlined in this document.

The following on-site modifications have already been implemented:

1. Urgent on-site needs will be managed via appointment by contacting the Main Office Supervisor, Brenda Minott at 517-353-1907 or email minott@msu.edu
2. Accident reporting
The protocol remains the same, with the expectation the submission of the accident report is to be emailed to minott@msu.edu for final processing.
3. Telephone
Staff telephones have been set up to ring at each employee's remote work site.
4. Mail Services
 - a. Incoming mail will be distributed to mailboxes in 485A Chemistry by receiving staff on a regular basis.
 - b. Outgoing mail is available only via Federal Express or UPS, see receiving staff at the loading dock for assistance, per the shipping rules outlined in this document.
5. Mail/Copier Room 485B Protocol:
Room 485B will remain locked during the period administrative staff are working remotely. This is important to mitigate spread of the virus, and maintain mailbox content security. Each user must wipe down the copier touch points and door knobs before and after their use and entry with provided sanitization products contained within each room.
 - a. Mailbox access by graduate students and postdocs. Mailboxes are accessible for these employees from the hallway, using the combination lock code they were provided.
 - b. Copier repairs
 - i. Room 185B copier repairs are to be reported to Todd Burkhart at 517-353-1135 or email at burkha59@chemistry.msu.edu
 - ii. Room 485B copier repairs are to be report to Mary Mroz at 517-355-9715 or email mroz@chemistry.msu.edu
 - c. Copier access for graduate students and postdocs is available in room 185B Chemistry via card access.
 - i. Each user must wipe down the copier touch points and door knobs before and after their use and entry with provided sanitization products contained within each room.
 - ii. Other urgent on-site needs will be managed by appointment by contacting the Business Office supervisor, Beth McGaw at 517-353-1095 or email mcgaw@chemistry.msu.edu

Undergraduate Advising for Chemistry is available remotely until the COVID-19 virus is contained, or until MSU mandates a return to in-person, on-campus work for non-essential employees.

Chemistry Business Office

Chemistry Business Office staff will work remotely until the COVID-19 virus is contained, or until MSU mandates a return to in-person, on-campus work for administrative staff. As Chemistry needs arise where a staff member must visit the building in-person, this individual will be required to adhere to all related safety expectations outlined in this document. NOTE: the onboarding of new employees is currently managed remotely and will continue until administrative staff are back work on campus.

The following on-site modifications apply:

1. Issuance of physical keys
Employees requiring the issuance of a physical key(s) are required to schedule an on-site appointment with administrative staff by emailing CEM.KeyCardAccess@chemistry.msu.edu. A minimum of one business day notice is required.
2. Issuance of card access
3. Employees requiring the issuance of electronic card access are required to email their request to CEM.KeyCardAccess@chemistry.msu.edu with the following information:
 - a. Room(s) number(s) access is needed
 - b. Name of sponsoring Chemistry faculty member
 - c. MSU business purpose you are needing this access
Physical signature acknowledging this access will be delayed until administrative staff are back on campus
4. Order Processing
 - a. CEMReq orders are to be emailed to CEM.AdministrativeServices@chemistry.msu.edu along with quotes. Business Office staff will interact with you electronically throughout the order process. NOTE: Chemistry is working on a web order form. An announcement will be issued once the web order form is available.
 - b. Employees will also continue to utilize Spartan Marketplace orders as normal.
5. Managing service center payments
 - a. Business Office staff will contact Chemistry Receiving on a weekly basis and if service center payments have been received, they will visit the Chemistry Building to obtain payments received for processing. This will only occur once the MSU Cashier's Office is open.
6. Urgent on-site needs will be managed via appointment by contacting the Business Office supervisor, Beth McGaw at 517-353-1095 or email mcgaw@chemistry.msu.edu

Chemistry Stockroom

Chemistry Store hours will continue to be 9 am to 4:30 pm, by appointment only. These hours are subject to change without prior notice.

1. Shipments will be received from the inner dock, room 135, and then placed in room B-2 in the sub-basement.
2. Orders will be received using a web form currently being developed by Chemistry Administrative Services. Signatures will not be required. Until the web order form is available, email messages can be used to request orders.
3. Orders will be filled by a stockroom employee wearing both a mask and neoprene gloves. They will then be placed on a utility cart behind closed doors in the Stockroom.
4. The customer will be notified by email when the order is ready to be picked up.
5. When the customer arrives and rings the doorbell, the door will be opened to allow the cart to be pushed out into the hallway so that the customer can retrieve their order. Both the stockroom employee and the customer are required to wear masks and appropriate PPE.

Chemistry Purchasing

1. Orders will be placed via the web form or via email messages:
 - a. Email Receiving (receiving@chemistry.msu.edu)
 - b. Research Stockroom (flick@chemistry.msu.edu)
2. [Chemistry Department Catalog](#)
3. An email message will be sent when your order is ready for pickup. Include phone number if preferred method of contact.
4. CEMStores/Receiving staff will submit scanned paper documents to the CEM Business Office via email to receipts@chemistry.msu.edu rather than hand delivery to 320 Chemistry.
5. **Cylinder orders:** Email request will require cylinder type, account information, and room location. Eric Smariege (smariege@chemistry.msu.edu) will record this information in the cylinder log, which will include the cylinder's barcode. For your convenience the cylinder will be available for pick-up in the rack to the left of the dry ice bin. Specialty gas cylinders will be placed in the same rack for pick-up at the purchaser's request.

Chemistry Receiving

1. Shipping Requests
 - a. Must be submitted via email
 - b. Allow approximately 2 hours for processing
 - c. Include electronic MTA's, MSDS, and a signed Chemistry Transportation Request Form
 - d. You will be contacted to drop-off your package. The package can be left on table at Receiving's window for final shipping preparations.
2. Package Pick-up

- a. The recipient will be notified by email of order's arrival.
- b. We will attempt to arrange pick-up intervals to maintain social distancing.
- c. Notify Eric Smariege at the Receiving window that you are there for a package.
- d. Your package will be placed outside the entrance door (please remain at the window).
- e. Sign shipping log (electronic signature or card swipe pending) and pick-up package.

X-Ray Crystallographic Lab

All persons entering the facility are required to be trained on the following new precautions.

Chemistry 434, SCXRD

1. Only 2 people are allowed in lab at any given time.
 - a. This is controlled by appointment only, appointment controlled by the facility manager, Dr. Richard Staples.
 - b. Submission of request for services will now be done online by going to the [X-ray facility's web page](#).
 - c. Through online submission, an appointment can be made to drop off samples.
2. Person operating or running the instrument will have first priority for lab access.
 - a. Microscope use, only 1 person can use at any given time.
 - b. Microscope will be wiped down with alcohol prior to and after use.
 - c. Clean gloves will be worn while mounting crystals.
 - d. The user will ensure that the instrument, keyboard, mouse, and common touched areas are wiped down.
3. Once data collection has been started, laboratory access will be limited to only those that need to be in the lab.

Chemistry 582, PWXRD

1. Only 1 person is allowed to use the instrument at any given time.
2. Submission for use of the Powder Diffractometer will be via the Calendar program plus
3. The person operating the instrument must email Dr. Richard Staples to confirm the appointment.
4. Hands must be washed prior to entering the lab and after exiting the lab. Gloves, isopropyl alcohol, and hand soap will be provided in the lab.
5. The instrument will be wiped down with wipes thoroughly prior to and after use.
6. Gloves will be worn at all times.
7. The user will ensure that the instrument, keyboard, mouse, and common touched areas are wiped down.

Violation of any of these procedures or any other regulations issued by MSU, College of Natural Science and the Department of Chemistry will result in loss of the ability to use the resources of the Center and whatever discipline governed by any other department.

NMR

All persons using the NMR spectrometers must obey all rules and procedures or risk losing access to the NMR labs. **All access is by online reservation only using the [Faces scheduling system](#) webpage.** Group, Username, and Password credentials will be provided by email to Dan Holmes upon request.

1. New user training is suspended until further notice. New personnel can have other users in their group run the samples or email staff for assistance.
2. Assistance in running advanced experiments will be performed remotely using Teamviewer, Zoom, or similar technology.
3. Lab staff will wash frequently touched surfaces like door knobs, keyboards, mice, spinners, and autosampler surfaces (room 582) twice a day.
4. Walkup NMR, Room 582 (2 Agilent DDR2 500 MHz equipped with autosamplers):
 - a. Only 2 persons are allowed in the lab at a time. Gloves and masks must be worn at all times. Hands must be washed prior to entering the lab and after exiting the lab.
 - i. Gloves, isopropyl alcohol, and hand soap will be provided in the lab.
 - b. NMR spectrometers must be reserved online for a 5-minute slot and users must come on time and leave before the time slot expires. If a reservation is missed, a new one will need to be created. Only one time slot per user may be reserved in advance.
 - c. Please be sure to only go to the instrument you reserved (labeled Left-NMR or Right-NMR). The computer and spinners for each spectrometer have been moved to the West (Left-NMR) and East (Right-NMR) benches to promote social distancing.
 - d. Only remove your previously run samples during your reserved time slot.
 - e. During cryogen fills and other maintenance tasks, no users are allowed in the lab. NMR time slots will be blocked during these periods.
 - f. Access to other instruments in room 582 must be arranged through Daniel Holmes (holmesd5@msu.edu) or Richard Staples (staples@chemistry.msu.edu).
5. Solid-State NMR (B10), and Liquid-State NMR (B7, B8).
 - a. Only 2 persons are allowed in the lab at a time except for B10, which can accommodate 3 persons. Gloves and masks must be worn at all times. Hands must be washed prior to entering the lab and after exiting the lab.
 - b. NMR spectrometers must be reserved online including solid-state instruments. Users must not enter prior to their allotted time nor stay past reserved slot.

- c. Assistance in running advanced experiments will be performed remotely using Teamviewer, Zoom, or similar technology.
 - i. If in-person assistance is needed, staff will request researcher to remain at least 6 feet away while staff is in the lab.
- 6. Undergraduate NMR lab, Room 125
 - a. The undergraduate NMR lab is closed until further notice.

Analytical Laboratories

General Guidelines

1. Only those with instrument training, keycard access, and a confirmed reservation are permitted in the lab and only during their reserved time.
2. No new training will be conducted until further notice.
3. Room occupancy (see below) is controlled by limiting the number of instrument reservations in a room at a given time.
4. Instrument reservations are made by contacting Kathy Severin (severin@chemistry.msu.edu) in advance.
 - a. NO access is granted until a reservation has been confirmed.
 - b. Requests must indicate if any “Shared Resources” are also needed: balances, hoods, vortex mixers, pellet press, etc.
 - c. Once created, instrument calendars will be made viewable on-line.
 - d. During in-person lab course times, research users will NOT have access.
5. Social distancing of >6 feet is required while in the labs, in the hallway outside, and when moving about the lab and through doorways.
6. Face masks, safety glasses/goggles, and fresh gloves must be worn at all times.
7. Soap, paper towels, and disposable gloves will be at a designated sink in each lab, usually the one nearest the keycard entry door.
8. Spray bottles of 70% IPA and wipes for disinfecting will be available outside the labs and next to each instrument.
9. Anyone violating these protocols will lose their access to the labs.

Entry, use, and exit protocols

1. Users and staff must use the 70% IPA and wipes to sanitize door handles/knobs and light switches upon entering and exiting a lab.
2. Once in the lab, wash hands with soap and water, then put on fresh gloves.
3. Confine yourself and everything you’ve brought into the lab to your reserved instrument and you reserved shared resource areas.
4. Wipe surfaces before beginning and after using an instrument with 70% isopropanol and a wipe:
 - a. Lab bench: spray and wipe with a paper towel
 - b. Instrument (instrument specific instructions below)
 - c. Keyboard and mouse: do NOT spray—wipe off gently with a damp (NOT dripping) wipe.

- d. Monitor: do NOT touch or attempt to clean the monitor
 - e. Pens: wipe off any before and after using.
 - f. Shared Resources: spray and wipe with a paper towel or wipe (as appropriate, use common sense) including hood sashes and windows.
5. Turn off UV-Vis, fluorescence, and FTIR spectrometers when done.
 6. Notify Kathy Severin immediately of any instrument problems and/or if disinfection supplies and gloves are running low.

Analytical Laboratory Capacities

1. 24 Chemistry Building
 - a. 1 person using the ICP-OES
 - b. 1 person can enter briefly to use an oven or the flammables refrigerator. This type of regular, brief access must be arranged in advance with Kathy Severin to establish protocols.
2. 33 Chemistry Building
 - a. 2 or 3 people using different instruments and different shared resources
 - b. Kathy Severin will decide based upon relative location of requested instruments during the requested reservation time, need for shared resources, and the instrument operation mode (e.g. auto-sampler use)
3. 35 Chemistry Building
 - a. 2 or 3 people using different instruments and different shared resources
 - b. Kathy Severin will decide based upon relative location of requested instruments during the requested reservation time, need for shared resources, and the instrument operation mode (e.g. auto-sampler use)
 - c. Li Xie and Dan Holmes use this room routinely and intermittently for NMR sample prep. The room is large enough to maintain social distancing, so this does not count in room capacity limits.

Instrument Specific Disinfection Procedures:

1. **ICP-OES:** Wipe off auto-sampler rack area and the racks used, peristaltic pump tubing (auto-sampler & instrument), water chiller power switch, and the 2 valves on the argon tank.
2. **UV-Vis, Fluorescence, and FTIR spectrometers:** Wipe off the lid (especially where lifted), sample holder(s), and power switch areas.
3. **Contact angle system:** Wipe off the sample stage, all three position adjustment knobs, syringe, syringe holder and set-screw, liquid dispensing knob, camera power switch, and the cap covering the camera lens.
4. Procedures for additional instruments will be added as needed.

Machine and Glass Shops

1. Work in the machine and glass shops by Glenn Wesley and Scott Bankroff, respectively, will resume with a closed-door policy.

2. Accounting issues and developing plans for new pieces and repairs should be handled by email if possible.
3. Appointments for pick up and drop off of parts and for discussions of new work should be arranged in advance by email or telephone.
4. Meetings will be conducted with one person at a time following the social distancing rules and mask requirements.
5. Glass and machine shop parts to be taken for repair should be washed with >70% ethanol or isopropanol prior to taking to the shop whenever possible. Every precaution should be taken to ensure that the piece is not re-contaminated by always wearing clean gloves and a face mask while handling it. If possible, place the piece in a closed cardboard box immediately after washing with alcohol solution.

Appendices

1. Chemistry Building Contacts

Robert Maleczka

Department Chair

Maleczka@msu.edu

Mobile: 517-881-9425

Brenda Minott

Department Administrator

Minott@msu.edu

Cell: 517-749-2806

Robert Rasico

Building Manager

rasico@chemistry.msu.edu

Cell: 517-388-3136

Aaron Odom

Chemistry Safety Committee Chair

odom@chemistry.msu.edu

Cell: 517-927-6377

2. List of Shared Laboratory Spaces in the Chemistry Building

Room 4

Nature of work: shared student office space

Shared by: Beck and Posey groups

Room 14

Assigned to: Weliky

Nature of work: shaker, centrifuge, sonicator

Shared by: Weliky, McCracken, and Geiger groups

Room 15

Assigned to: Weliky

Nature of work: Milli-Q deionized water, lyophilizer

Shared by: Geiger, Beck, Proshylakov, Hong, Walker, Lapidus (Physics)

Room 19

Nature of work: pass-through en route to the interior offices in the Theory Suite

Shared by: KLC Hunt and Piecuch groups

Room 55

Assigned to: Posey and McCracken

Nature of work: shared instrumentation room, ESR belongs to McCracken, mass spectrometer belongs to Posey

Shared by: Posey and McCracken

Room 60

Assigned to: Proshylakov and Beaulac

Nature of work: shared instrumentation room, containing lasers and Raman detection equipment for Proshylakov

Room 281

Assigned to: Merz

Nature of work: office space

Shared by: Todd Lydic

Room 332

Nature of work: SEC (Mitch Smith) and DLS (Huang) instrumentation

Shared use by: Smith, Huang, Blanchard

Room 337

Nature of work: computer mainframes

Shared by: Reed, Piecuch, and other theory/computational

Rooms 407, 408

Assigned to: Smith

Nature of Work: solvent stills and -80 °C freezer

Shared by: Hamann, Maleczka, and Odom; also Andre Lee (engineering, via Maleczka)

Room 412

Assigned to: Smith

Nature of Work: gloveboxes, chemical storage, vacuum line, GC/MS instrumentation

Shared by: Hamann, Maleczka and Odom; also Andre Lee (engineering, via Maleczka)

Room 416

Assigned to: Smith

Nature of work: Parr high-pressure parallel reactor system and Karl Fischer titration system

Shared by: Hamann and Malecka groups

Room 514

Assigned to: Frost

Nature of work: batch fermentors used by Drafts group

Additional groups: Drafts, Smith

Room 535

Assigned to: Jackson

Nature of work: synthesis

Shared by: Borhan

Room 520

Assigned to: Frost

Nature of work/instruments: HPLC, GC (Frost's equipment, but he doesn't have any current students using the equipment)

Additional groups: none

Room 503

Assigned to: Maleczka

Nature of work: synthesis

Additional groups: Smith

Room 529A

Assigned to: Maleczka

Nature of work: synthesis

Additional groups: Smith

Room 600B

Assigned to: Frost

Nature of work: storage room for notebooks

Used by: Drafts, Frost