Updated Dec. 3, 2020
New text shown in red

Measures for a Safe Return to Research – Chemistry

Purpose: To implement a work plan to minimize the number of people in the lab at one time, minimize contacts and to permit physical distancing. The COVID-19 virus will remain a serious concern for several months, and thus we need to adopt some new habits that allow us to continue our work and reduce the risk of acquiring and spreading the virus. This document outlines procedures for accessing the chemistry buildings for work that requires on-site access with the expectation that researchers continue to minimize time spent in the building and continue to work from home whenever possible.

Violations will result in immediate loss of building access until further notice.

Note: Supervisors must complete a complementary group/facility specific procedures document for returning to work (template provided). Supervisors cannot require trainees to work in conditions in which they feel unsafe. If you feel unsafe, bring workplace shortcomings that are inconsistent with provincial health policy to the attention of your immediate supervisor. If this does not resolve your concerns please consult Policy SC1 for procedures on addressing workplace safety concerns.

Before you come to the department, monitor your health status. Common symptoms according to WHO are:

- Fever
- Dry Cough
- Tiredness
- Loss of sense of taste/smell
- Sore throat

If you are experiencing any of these symptoms, use the BC Health Self-Assessment tool to determine if you require further testing or medical care: https://bc.thrive.health/. No one with symptoms should leave their home.

In accordance with UBC policy and a Public Health order, daily confirmation of a health self-assessment is required. Confirmation that this self-assessment has been completed must be recorded in the Chemistry Check In / Check Out app CHICO (https://wapps.chem.ubc.ca/chico)

Minimize time at UBC and work from home whenever possible.

- No documentation or other office work is allowed, excluding short notes in lab books.

The UBC COVID-19 Campus Rules are available at: https://srs.ubc.ca/files/2020/07/COVID-19_Campus-Rules.pdf

Procedures:

Transit to and from UBC:

- Any personnel required to be at UBC are strongly recommended to use transportation that minimizes exposure risk; private vehicle, motorbike or bicycle; or walk.
- Translink options to be considered in compliance with City of Vancouver and BC recommendations and staggered starts/departures within each working group are encouraged.

Office /Social space use:

- Office space is to be used one at a time AND only if working from home is not possible.
- In-person group meetings in any space must not be held.
- Office desks/computers should be wiped before and after use with disinfectant.
- All laptops are recommended to stay at home or be wiped down with disinfectant upon arrival and at departure.
- Minimize social interactions in the building; maintain physical distancing to the best of your ability when interactions are required.

Work space use:

1. Always maintain a minimum distance of two metres to the next person.

Rules of thumb: keep at least one workspace (bench) between you and others.

2. Working hours are currently 7 am – 6 pm seven days a week. Shift work may be required in research groups where the number of researchers exceeds the maximum occupancy of the lab spaces. Within each research group, members must be assigned to routine laboratory duties such as cleaning of high-touch areas (e.g., doorknobs, oven and refrigerator handles etc.).

3. Every person attending work on campus must sign-in and sign-out of CHICO, our departmental webapp for determining who is in the department. Supervisors are required to monitor CHICO daily to ensure researchers arrive and depart safely.

4. The number of persons allowed in each room will be posted and must not be exceeded.

5. Avoid social contacts by keeping your distance and reducing contact with common areas and movement throughout the buildings. Where possible, complete multiple tasks on one trip (e.g., complete one trip to stores/day rather than multiple trips)

6. At the start of each day prop all doors that can be propped open within your work space to minimize high touch areas. All high-touch areas within your work space should be cleaned hourly (distribute work amongst co-workers).

7. General (non-work related) use of masks

- Individuals in common spaces are **required** to wear non-medical masks.
- Mask usage is encouraged in working areas: labs, equipment rooms, group offices.
- In September, UBC announced a new mask policy that takes place starting September 16, 2020. This section relies on the UBC Mask Policy posted on the SRS site, https://srs.ubc.ca/covid-19/health-safety-covid-19/non-medical-masks/.
- Bringing and using your own washable cloth mask is allowed and encouraged.
- Dispose or wash the masks responsibly.

8. PPE - Lab coats must always be worn in lab areas.

- Store your personal lab coat away from that of others.
- Lab coat laundry is available through Chem Stores

9. PPE – Gloves

- Gloves are to be used for laboratory work and are not to be worn in common/office areas

10. Wash hands/sanitize when entering or leaving any space.

- Hand sanitizer provided at the building entrances must be used when entering or leaving the building.
- Additionally, wash hands/sanitize any time you move between areas: lab, office, and common areas.

11. Surface cleaning

Disinfectant should be used to wipe down any frequently touched surfaces pre- and post- use:

- All surfaces including handles and switches
- All multiuser equipment (pipettes, automated pipettes, balances, gloveboxes…)
- Shared chemical/reagent bottles
- Checklist for additional lab cleaning of commonly used equipment, tools, etc. will be established in and carried out by each lab

12. Work routines must be coordinated in both time and space

- Establish consistent shifts to minimize contacts
- Coordinate shifts within shared labs (e.g., lab shared with two other research groups) to remain below the lab's maximum occupancy
- Coordinate common lab areas (equipment rooms) to maintain physical distance.

13. Multi-user instruments.

- Labs/facilities must identify multi-user instruments and develop an approved protocol for their use
- Users of multi-use instruments must clean their hands and the instrument before and after each use
- Users are expected to wear a mask when using multi-use instruments

14. Work Safety for working alone in a space

- Use buddy system to ensure safe workplace protocol

Building Emergency Response Plan

The building emergency response plans for the five buildings in the Chemistry Department have been updated for the lower staffing levels during the first phases of the UBC return to work plan. This includes updating information about fire and floor wardens.

Monitoring for Compliance

Monday-Friday from 9 am-5 pm, there will be at least one faculty member who will be on site in the Chemistry buildings. This faculty member will make sure that only those researchers who are scheduled to be in the Department are working. Furthermore, the faculty member will be a point of contact in case a researcher needs assistance with an experiment, or as an additional point of contact in case of emergency (for the updated building emergency response plan).

Meals and Breaks:

- Meals, snacks and breaks should be enjoyed outdoors whenever possible
- Indoor snacks and breaks should take place in B250 which is large enough to accommodate physical distancing; a maximum room capacity will be posted.
- Food preparation should be avoided. When common appliances are used (e.g., microwave, coffee maker) they should be wiped down with disinfectant prior to and following use.

Common space use:

- Maintain physical distancing where possible
- Only one occupant to an elevator at a time
- To minimize crossing, stairwells will have marked preferred directions for moving through the buildings
- When moving through the building, you are required to wear a mask.
- Wash hands before entering common space and wash hands upon returning to working space (gloves are NOT to be worn in common spaces)

Washrooms:

- It is acknowledged that washrooms are a high-risk space and extra care in hand-washing, not touching your face and respecting physical distancing measures is critical
- Where possible, doors to washrooms should be propped open to minimize high touch surfaces and maximize ventilation
- Only one occupant should use the washroom at a time.

Multiuser facility use:

- User access will require adherence to facility specific procedures and will be controlled by each facility supervisor
- Users MUST comply with procedures or access/services will be denied

Responsibilities

Faculty, Facilities/Staff Managers

- Must complete a workplace protocol template specific to your group and all spaces assigned to your group
- Establish research, personnel and maintenance schedule for the lab.
- Ensure all personnel under their supervision have read and understood all policies pertaining to their research site
- Provide contacts of themselves and personnel entering the lab to unit head, senior administrator and building manager (name, email, phone number)
- To post contact info and maximum occupancy on all lab entrances

Staff and students

Are responsible to:

- Read, understand and signoff that they consent to following all the Federal/Provincial regulations and UBC policies pertaining to performing research during COVID-19
- Report concerns regarding COVID-19 concerns to supervisors, as appropriate in the context of UBC and BC privacy regulations.

Signature line for researcher acknowledgment

I _____ have read and understand the additional precautions being taken during this time in order to reduce our risk from COVID-19 and sign below to verify that I am happy to continue to work in compliance of this policy.

EMPLOYEE/STUDENT ID:

Please mark your department role:

☐ Undergraduate student

☐ Graduate Student

☐ Post-doctoral Fellow

☐ Staff

☐ Faculty

☐ Other:

RESEARCHER SIGNATURE _____

DATE _____

SUPERVISOR SIGNATURE _____

DATE _____

Appendix 1: Shops and Services Plans

Table of Contents

BIOSERVICES RETURN to WORK

When to come to work, when to stay home, getting to work

- Covered in departmental policy
- ***Initially each staff member will be assigned to shift A or B, and can only come to campus on those days. If experimental procedures require to come on unassigned day, arrangements will be made between staff to exchange the shifts, so the only one staff member will be present in the lab. Change of shifts will be recorded in the lab calendar on-line in case of contact tracing needed.***
- ***Staff are encouraged to work from home, even on their assigned days on campus, for tasks that can be performed remotely.***

General guidelines for physical distancing and movement around the buildings, PPE, hand washing and use of sanitizers

- Covered in departmental policy
  - ***Max room occupancy in the Bio Services:***

Room	***Number of people***
A410	***2***
A412 (autoclave)	***1***
A418 (cell culture/microscope)	***1***
A420	***2***
A424(shaker/robot)	***2***
A426 (cold room)	***1***
A428	***2***

- ***Staff and lab users should wear a lab coat, mask/face shield, gloves at all times in the lab.***
- ***When not in use, the lab coats must be isolated from each other by placing them in small signed autoclavable bags. The users will be encouraged to sterilized their lab coats regularly (daily?) by autoclaving.***
- ***Additional cryogenic PPE and UV-protection shields will be provided so they could be disinfected between usage in the lab.***

Shared Equipment Cleaning

- Covered in departmental policy

Changes to Operating Practice

- What functions will not be done anymore?
  - ***Training of new students how to use some of the more sophisticated or easy to damage instrumentation, such as robotic station, high speed centrifuges, Steris autoclave.***
- What functions normally done on a self-service basis by students will change to technician/staff run?
  - ***Sterilization by autoclaving (during regular business hours).***
  - ***Not trained in instrumentation students will bring their materials for high speed centrifugation, advanced image analyses, etc. to be performed by staff.***
- What new functions need to be provided?
  - ***Mixing and bottling hand sanitizer.***
  - ***Additional disinfection of instruments, lab benches, high touch spots.***
  - ***Sterilization of lab coats.***
- What functions can be performed on-line rather than in-person?
  - ***Consultations, video training with some "behind the back" function. Lab notes, research calculations, data analysis, literature work, reports and manuscripts preparation, accounts, records, order of supplies.***
- Is support already available for on-line operations? ***Videos need to be prepared.***
- What functions will be done differently?
  - ***Items for autoclaving will be collected on a bench outside the lab entrance.***
  - ***Lab biosafety orientation/training will be done on a video or by Whatsup/Facetime.***

Site specific cleaning, disinfection, and wayfinding

- What cleaning protocols above and beyond those proposed by the department are needed?
  - ***Additional spray bottles with 70% Ethanol will be placed in each room.***
  - ***Small autoclavable bags for lab coats will be provided, so lab coats could be autoclaved on everyday basis or as needed.***
- Provide specific instructions for key pieces of equipment and other materials.
  - ***Each instrument touch points will be disinfected with 70% ethanol several times per day.***
  - ***The lab users will be instructed to additionally disinfect the touch points of the instrument before and after use.***
  - ***Touch screens will be covered in plastic wrap that will be wiped with disinfectant between usage and changed daily.***

- Where will directional arrows, spacing circles, and other directional indicators be placed to help customers implement physical distancing.
    - ***No directional signs are needed because only 1-2 people per room will be allowed.***
    - ***Green and red indicators will be placed on the door knobs that will help to keep allowed number of people per room.***

Staffing Plan

- What portion of time can staff members spend working from home while maintaining productivity? ***Approximately 30%.***
- How many staff are going to be affected by childcare or eldercare responsibilities? ***None***
- How many staff are needed on site each day to maintain an adequate service level?

Usually 2. Strict scheduling of project load will allow to keep 1.

- Will staff work in shifts? If so, what is the proposed shift format?
    - ***We'll start with 2 shifts proposed by the department: A/ Mon-Wed, B/ Thu-Sat, but some projects require flexibility and shift days can change.***
    - ***The on-line calendar of the staff lab presence will be kept in case of contact tracing needed.***
- What changes to operating hours? ***Saturday 8am-4pm, with staff available in the lab or remotely.***
- What can be put on-line vs. done in person? ***Training videos, scheduling/booking calendar***.
- Based on Changes to Operating Practices and Staffing Plan, does the group need assistance? If so, what skills? ***No***
- Based on Changes to Operating Practices and Staffing Plan, does the group have excess resources? If so, what skills could be utilized by other groups? ***No***
- List any technology hardware or software needed by staff to work more safely.
    - ***Booking calendar for Bio Services needs to be modified in order to book a room instead of instruments. 15 min increments for 24 hours.***
    - ***Install electronic log book for instruments (similar to what SIF has) to replace paper log-books.***
    - ***Make 2 <u>movable</u> plexiglass dividers.***
    - ***Cell phones for staff provided or subsidized by the department.***

To Do List for Reopening

What	By when	Who will do	Notes
Notify department of new operating procedures, new rules, etc.	***Before opening day***	Elena Polishchuk	Bio Services Web page note, e-mail to the department or user group.

Set up cart and shelves for materials to autoclave	On opening day	Jessie Chen	
Set up and explain shift schedules to group	***Before opening day***	Elena	
Order small autoclave bags, cryogenic PPE, UV-protection shields	***Before opening day***	Jessie	
Buy supplies from Chem Stores	On opening day	Jessie	
Place request to Mech Shop to make two movable plexiglass dividers	***Before opening day***	Elena /MES	
Place request to Peter to modify Booking calendar	***Before opening day***	Elena /Peter	
Post new procedures on each Bio Services lab door	***Before opening day***	Elena	
Make green/red indicators for the doors (18)	***Before opening day***	Elena	Check stores for simple and easy to clean option.
Install equipment electronic log-books	***Before opening day***	Elena /Electronic Shop	not realistic?
Set up electronic lab notebooks for Bioservices staff	***Before opening day***	Elena	
Arrange a cell phone for Jessie	***On opening day***	?	?
Video of lab orientation and instruments training	***Before opening day***	Elena /Jessie	

ELECTRICAL ENGINEERING SERVICES
RETURN to WORK

When to come to work, when to stay home, getting to work

- See the departmental policy for general guidelines.
- Each staff member will be assigned to shift A or B, and can only come to campus on those days.
- Staff are encouraged to work from home, even on their assigned days on campus, when they have sufficient work to do from home.

General guidelines for physical distancing and movement around the buildings, PPE, hand washing and use of sanitizers

- See the departmental policy for general guidelines.
- Technicians are encouraged to wear a mask at all times.
- A mask must be worn when moving around the shop and in the office area.
    - It will not be possible to maintain a 6’ distance from coworkers when moving around the office area, therefore the person moving must move quickly and wear a mask.
- As with lab coats, shop coats must be isolated from each other, unless they are being sent for laundering.

Shared Equipment Cleaning

- See the departmental policy for general guidelines.
- Shared equipment must be wiped down with soapy water or sanitizer before and after use.

Changes to Operating Practice

- What functions will not be done anymore?
    - *We anticipate that the shop will continue to offer all key services.*
- What functions normally done on a self-service basis by students will change to technician/staff run?
    - *None*
- What new functions need to be provided?

    - *The staff may be called on more often to deal with issues in the labs because the people who are usually responsible are working from home.*
- What functions can be performed on-line rather than in-person? Is support already available for on-line operations?
    - *An on-line requisition system will be implemented. Customers will not come to the shop to write requisitions.*
    - *The supervisor and technicians will be available to do consultations over Zoom, to limit the number of staff coming to the shop.*
- What functions will be done differently?
    - *A desk will be placed in the hallway for customers to drop off equipment and for them* to *pick equipment up from.*

Site specific cleaning, disinfection, and wayfinding

- What cleaning protocols above and beyond those proposed by the department are needed?
    - *None*
- Provide specific instructions for key pieces of equipment and other materials.
    - *Do not use solvents on equipment windows, touch screens, of similar items. Do not douse equipment with soap and water. Use soap and water sparingly, and rinse the equipment immediately after washing with a well wrung out cloth.*
- Where will directional arrows, spacing circles, and other directional indicators be placed to help customers implement physical distancing?
    - *No directional signs are needed in the shop, since no customers will enter the shop.*

Staffing Plan

- What portion of time can staff members spend working from home while maintaining productivity?
    - *Some staff can work ½ time from home, but most staff and effectively work for 8 hours or less from home. Typical tasks done from home may include parts ordering, circuit design and PCB layout, programming, and review of documentation prior to tackling instrument repairs.*
- How many staff are going to be affected by childcare or eldercare responsibilities?
    - *None that we are aware of*
- How many staff are needed on site each day to maintain an adequate service level?
    - *2 or 3 staff can handle urgent issues that come up during the day.*
    - *We don't know when the incoming job rate will return to normal levels, but presumably we'll need all staff in every day for the first while.*
- Will staff work in shifts? If so, what is the proposed shift format?
    - *Yes. Following the researcher plans, we'll have two shifts, Monday to Wednesday, Thursday to Saturday, 10 hours per day, with 1 day reserved to work from home.*

    - *On June 1 we will start with normal 7.5-hour shifts, 2 or 3 days per week. Once we have an agreement with CUPE 116 on the alternate shifts we will move to extended hours and Saturday work.*
- What changes to operating hours?
    - *Eventually, the shop will be open Monday to Saturday, 8 AM to 5 PM.*
- What can be put on-line vs. done in person?
    - *PCB design and programming can be performed off site.*
    - *Purchasing can be done off site.*
    - *The supervisor and technicians will be available to do consultations over Zoom, to limit the number of staff coming to the shop.*
- Based on Changes to Operating Practices and Staffing Plan, does the group need assistance? If so, what skills?
    - *It's difficult to predict how the department as a whole will be affected by COVID responses. The skills in this group are specialized, and we don't anticipate being able to help in other units or having other units assist the EES team.*
- Based on Changes to Operating Practices and Staffing Plan, does the group have excess resources? If so, what skills could be utilized by other groups?
    - *No*
- List any technology hardware or software needed by staff to work more safely.
    - *Customers should have webcams that they can use to in zoom meetings with the supervisor to describe the equipment that they need machining work done for.*
    - *The supervisors should have department supplied cell phones, or have their phones subsidized.*

To Do List for Reopening

What	**By when**	**Who will do**	**Notes**
Bench or cart in front of mech shop door, for equipment drop off	Opening day	David or delegate	
On line requisitions	Opening day	Peter with Tony (Affects all shops)	Use email at first, won't be ready in time for opening day
Group meeting to explain distancing rules, expectations, shifts	Before Opening day	David and Tony and group	Probably on zoom
Email to department explaining new procedures	Before Opening day	Tony	

GLASSBLOWING SERVICES RETURN to WORK

When to come to work, when to stay home, getting to work

- See the departmental policy for general guidelines.
- The single member of this team will work their standard shift.

General guidelines for physical distancing and movement around the buildings, PPE, hand washing and use of sanitizers

- See the departmental policy for general guidelines.
- Technicians are encouraged to wear a mask when communicating with customers.
- A mask must be worn when moving around the building.

Shared Equipment Cleaning

- See the departmental policy for general guidelines.
- Since visitors are not permitted in the glass shop, no additional cleaning is needed.

Changes to Operating Practice

- What functions will not be done anymore?
    - *Glassblowing training, a popular service normally provided by the glass blower to staff and graduate students, will not be offered until the next phase.*
- What functions normally done on a self-service basis by students will change to technician/staff run?
    - *None.*
- What new functions need to be provided?
    - *None.*
- What functions can be performed on-line rather than in-person? Is support already available for on-line operations?
    - *An on-line requisition system will be implemented. Customers will not come to the shop to write requisitions.*
    - *The glassblower will be available to do consultations over Zoom, to limit the number of staff coming to the shop.*
- What functions will be done differently?
    - *A desk will be placed in the hallway for customers to drop off equipment and for them* to *pick equipment up from.*

Site specific cleaning, disinfection, and wayfinding

- What cleaning protocols above and beyond those proposed by the department are needed?
    - *None*
- Provide specific instructions for key pieces of equipment and other materials.
    - *Do not use solvents on equipment windows, touch screens, of similar items. Do not douse equipment with soap and water. Use soap and water sparingly, and dry the equipment immediately after washing with a well wrung out cloth.*
- Where will directional arrows, spacing circles, and other directional indicators be placed to help customers implement physical distancing?
    - *No directional signs are needed in the shop, since no customers will enter the shop.*

Staffing Plan

- What portion of time can staff members spend working from home while maintaining productivity?
    - *In general, there is limited work that can be done from home, typically less than ½ day per week.*
- How many staff are going to be affected by childcare or eldercare responsibilities?
    - *None that we are aware of*
- How many staff are needed on site each day to maintain an adequate service level?
    - *The single glassblower will presumably be able to provide adequate service levels.*
- Will staff work in shifts? If so, what is the proposed shift format?
    - *No.*
- What changes to operating hours?
    - *None*
- What can be put on-line vs. done in person?
    - *The glass blower will be available to do consultations over Zoom, to limit the number of staff coming to the shop.*
- Based on Changes to Operating Practices and Staffing Plan, does the group need assistance? If so, what skills?
    - *No*
- Based on Changes to Operating Practices and Staffing Plan, does the group have excess resources? If so, what skills could be utilized by other groups?
    - *No*
- List any technology hardware or software needed by staff to work more safely.
    - *Customers should have webcams that they can use to in zoom meetings with the supervisor to describe the equipment that they need machining work done for.*
    -

To Do List for Reopening

What	By when	Who will do	Notes
Bench or cart in front of glass shop door, for equipment drop off	Opening day	Brian	
On line requisitions	Opening day	Peter with Tony (Affects all shops)	Use email at first, won't be ready in time for opening day
Group meeting to explain distancing rules, expectations, shifts	Before Opening day	Tony and Brian	Via zoom
Email to department explaining new procedures	Before Opening day	Tony	

INFORMATION TECHNOLOGY RETURN to WORK

When to come to work, when to stay home, getting to work

- See the departmental policy for general guidelines.
- Staff are encouraged to work from home unless they are required to be on campus.

General guidelines for physical distancing and movement around the buildings, PPE, hand washing and use of sanitizers

- See the departmental policy for general guidelines.

Shared Equipment Cleaning

- See the departmental policy for general guidelines.
- Shared equipment must be wiped down with soapy water or sanitizer before and after use.

Changes to Operating Practice

- What functions will not be done anymore?
    - *We anticipate that IT will continue to offer all key services.*
- What functions normally done on a self-service basis by students will change to technician/staff run?
    - *None*
- What new functions need to be provided?
    - *We expect that most 'working from home' IT issues have already been resolved!*
- What functions can be performed on-line rather than in-person? Is support already available for on-line operations?
    - *An on-line requisition system is being developed for the shops, and the use of this will be investigated for IT.*
- What functions will be done differently?
    - *Efforts will be made to resolve customer issues remotely before going to customer sites.*

Site specific cleaning, disinfection, and wayfinding

- What cleaning protocols above and beyond those proposed by the department are needed?
    - *None*
- Provide specific instructions for key pieces of equipment and other materials.
    - *Do not use solvents on equipment windows, touch screens, of similar items. Do not douse equipment with soap and water. Use soap and water sparingly, and rinse the equipment immediately after washing with a well wrung out cloth.*
- Where will directional arrows, spacing circles, and other directional indicators be placed to help customers implement physical distancing?
    - *No directional signs are needed in the shop, since no customers will enter the shop.*

Staffing Plan

- What portion of time can staff members spend working from home while maintaining productivity?
    - *Web app development*
        - *Can and will be done almost completely from home*
    - *Server maintenance*
        - *Can and will be done almost completely from home*
    - *Desktop support*
        - *Can be done 50% or more from home.*
- How many staff are going to be affected by childcare or eldercare responsibilities?
    - *None that we are aware of*
- How many staff are needed on site each day to maintain an adequate service level?
    - *We will need to monitor this.*
    - *Staff in EES may be needed to help triage and route queries to the right IT person.*
- Will staff work in shifts? If so, what is the proposed shift format?
    - *No.*
- What changes to operating hours?
    - *None*
- What can be put on-line vs. done in person?
    - *None*
- Based on Changes to Operating Practices and Staffing Plan, does the group need assistance? If so, what skills?
    - *It's difficult to predict how the department as a whole will be affected by COVID responses. The skills in this group are specialized, and we don't anticipate being able to help in other units or having other units assist the EES team.*
- Based on Changes to Operating Practices and Staffing Plan, does the group have excess resources? If so, what skills could be utilized by other groups?
    - *No*
- List any technology hardware or software needed by staff to work more safely.
    - *To be reviewed by the IT team.*

To Do List for Reopening

What	By when	Who will do	Notes

LASIR RETURN to WORK

When to come to work, when to stay home, getting to work

- *LASIR manager, Saeid Kamal, will come to the department 3 days a week.*

General guidelines for physical distancing and movement around the buildings, PPE, hand washing and use of sanitizers

- *LASIR houses two laboratories in E-wing, E113 and E116.*
- *In E113, only one user will be allowed into the lab for the use of the confocal microscope. The microscope is often used for the entire day by only one student and that is arranged through on-line scheduling. In case there is need to use other instruments in the lab, it will be coordinated by the manager to avoid overlap.*
- *In E116, curtains partition the lab into 3 sections which naturally provide the required physical distancing and protection. In each section only one user will be allowed to work. Use of the instruments is either arranged through on-line booking or coordinated by the manager.*
- *Wearing mask does not seem to be required.*

Shared Equipment Cleaning

- *Shared equipment must be wiped with 75% ethanol. This includes computer accessories as well as instrument covers/lids/shutters and control pads.*

Changes to Operating Practice

- What functions will not be done anymore?
    - *Training and onsite support for students/users will be very limited and if required, it will be arranged with required physical distancing and with wearing masks.*
- What functions normally done on a self-service basis by students will change to technician/staff run?
    - *None. However, measurement on some instruments which normally require the presence of the manager will be performed by the manager alone and students can simply drop off the sample.*
- What functions normally done by staff cannot be performed anymore?
    - *None*
- What new functions need to be provided?

    - *None*
- What functions can be performed on-line rather than in-person? Is support already available for on-line operations?
    - *Remote support has always been available for LASIR users since the manager also oversees LASIR operations at SFU. This support can now be more streamlined via Zoom to reduce the need for in-person contact.*
- What functions will be done differently?
    - *All meetings and discussions for data analysis, consultation, and initiating new projects will be conducted remotely.*
    - *Borrowing tools and dropping off samples will be arranged without in-person contact. If needed, a suitable location in E116 lab will be designated for such task.*

Site specific cleaning, disinfection, and wayfinding

- What cleaning protocols above and beyond those proposed by the department are needed?
    - *None*
- Provide specific instructions for key pieces of equipment and other materials.
    - *Instruments covers, control pads, cooling line valves, and laser shutters can be cleaned with 75% ethanol.*
- Where will directional arrows, spacing circles, and other directional indicators be placed to help customers implement physical distancing.
    - *No directional signs are needed. The doors to LASIR labs must always be closed. It will be helpful to have signage on the lab doors to show the presence of users in the lab*.

Staffing Plan

- What portion of time can staff members spend working from home while maintaining productivity?
    - *Not applicable*
- How many staff are going to be affected by childcare or eldercare responsibilities?
    - *None*
- How many staff are needed on site each day to maintain an adequate service level?
    - *There are no staff members for LASIR, only the manager who will be present 3 days a week*
- Will staff work in shifts? If so, what is the proposed shift format?
    - *Not applicable*
- What changes to operating hours?
    - *None*
- What can be put on-line vs. done in person?
    - *None*

- Based on Changes to Operating Practices and Staffing Plan, does the group need assistance? If so, what skills?
    - *No*
- Based on Changes to Operating Practices and Staffing Plan, does the group have excess resources? If so, what skills could be utilized by other groups?
    - *No*
- List any technology hardware or software needed by staff to work more safely.
    - *None*

To Do List for Reopening

What	**By when**	**Who will do**	**Notes**
Notify department of new operating procedures, new rules, etc.	opening day	Saeid Kamal	If required to do so.
Notify all LASIR users of modified access to the labs and operating procedures	Before opening day	Saeid Kamal	
On-line booking calendar for some of the instruments in LASIR	Before opening day	Saeid Kamal	
Signage on the doors	Before opening day	Saeid Kamal	Will the department provide any signage?

MECHANICAL ENGINEERING SERVICES
RETURN to WORK

When to come to work, when to stay home, getting to work

- See the departmental policy for general guidelines.
- Each staff member will be assigned to shift A or B, and can only come to campus on those days.
- Staff are encouraged to work from home, even on their assigned days on campus, when they have sufficient work to do from home.

General guidelines for physical distancing and movement around the buildings, PPE, hand washing and use of sanitizers

- See the departmental policy for general guidelines.
- Technicians are encouraged to wear a mask at all times.
- A mask must be worn when moving around the shop and in the office area.
    - It will not be possible to maintain a 6’ distance from coworkers when moving around the office area, therefore the person moving must move quickly and wear a mask.
- As with lab coats, shop coats must be isolated from each other, unless they are being sent for laundering.

Shared Equipment Cleaning

- See the departmental policy for general guidelines.
- Shared equipment (mills, lathes, etc.) must be wiped down with soapy water or sanitizer before and after use, and at a minimum at the start and end of each shift.

Changes to Operating Practice

- What functions will not be done anymore?
    - *Moves and lifts requiring multiple workers will be avoided and delayed where possible.*
- What functions normally done on a self-service basis by students will change to technician/staff run?

    - *The LN2 dispensing room will be operated by MES technicians. No self service will be allowed.*
    - *Each technician working in the room must have their own cryogenic PPE, especially face shields and cryo-gloves.*
- What new functions need to be provided?
    - *We expect that physical distancing shields will need to be fabricated for a number of areas.*
    - *The staff may be called on more often to deal with issues in the labs because the people who are usually responsible are working from home.*
- What functions can be performed on-line rather than in-person? Is support already available for on-line operations?
    - *An on-line requisition system will be implemented. Customers will not come to the shop to write requisitions.*
    - *The supervisor and technicians will be available to do consultations over Zoom, to limit the number of staff coming to the shop.*
- What functions will be done differently?
    - *A desk will be placed in the hallway for customers to drop off equipment and for them* to *pick equipment up from.*

Site specific cleaning, disinfection, and wayfinding

- What cleaning protocols above and beyond those proposed by the department are needed?
    - *None*
- Provide specific instructions for key pieces of equipment and other materials.
    - *Do not use solvents on equipment windows, touch screens, of similar items. Do not douse equipment with soap and water. Use soap and water sparingly, and dry the equipment immediately after washing with a well wrung out cloth.*
- Where will directional arrows, spacing circles, and other directional indicators be placed to help customers implement physical distancing?
    - *No directional signs are needed in the shop, since no customers will enter the shop.*

Staffing Plan

- What portion of time can staff members spend working from home while maintaining productivity?
    - *In general, there is limited work that can be done from home, typically less than ½ day per week.*
- How many staff are going to be affected by childcare or eldercare responsibilities?
    - *None that we are aware of*
- How many staff are needed on site each day to maintain an adequate service level?
    - *2 or 3 staff can handle urgent issues that come up during the day.*
    - *We don't know when the incoming job rate will return to normal levels, but presumably we'll need all staff in every day for the first while.*

- Will staff work in shifts? If so, what is the proposed shift format?
    - *Yes. Following the researcher plans, we'll have two shifts, Monday to Wednesday, Thursday to Saturday, 10 hours per day, with 1 day reserved to work from home.*
- What changes to operating hours?
    - *This will allow us to be open Saturdays, 8 to 4.*
- What can be put on-line vs. done in person?
    - *CAD/CAM and some machine programming can be performed off site.*
    - *Purchasing can be done off site.*
    - *The supervisor and technicians will be available to do consultations over Zoom, to limit the number of staff coming to the shop.*
- Based on Changes to Operating Practices and Staffing Plan, does the group need assistance? If so, what skills?
    - *It seems likely that with fewer total hours, the additional work of nitrogen dispensing, and the expect stack of drawings we expect to come back to, we will be unable to keep up with machining.*
    - *The required skills are specialized, and are unlikely to be found elsewhere in the department.*
- Based on Changes to Operating Practices and Staffing Plan, does the group have excess resources? If so, what skills could be utilized by other groups?
    - *No*
- List any technology hardware or software needed by staff to work more safely.
    - *Customers should have webcams that they can use to in zoom meetings with the supervisor to describe the equipment that they need machining work done for.*
    - *Use of the materials handling equipment recently purchased by Stores may allow a single technician to safely perform tasks that previously were done by 2 techs.*
    - *The supervisors should have department supplied cell phones, or have their phones subsidized.*

To Do List for Reopening

What	By when	Who will do	Notes
Bench or cart in front of mech shop door, for equipment drop off	Opening day	Des or delegate	
On line requisitions	Opening day	Peter with Tony (Affects all shops)	Use email at first, won't be ready in time for opening day
Group meeting to explain distancing rules, expectations, shifts	Before Opening day	Des and Tony and group	Probably on zoom

Email to department explaining new procedures	Before Opening day	Tony
Lock nitrogen room door, issue gloves and PPE to all staff who will be in LN2 room	Opening day	Des/Raz

MASS SPECTROMETRY AND ELEMENTAL ANALYSIS SERVICES RETURN to WORK

When to come to work, when to stay home, getting to work

- Covered in departmental policy
- Staff need to come to the lab to perform the tasks that involve instrument maintenance and operation. Two shifts will be set up. Two technicians are working in the lab alternately mainly to run all samples on different instruments for researchers.
- Staff are encouraged to work from home. The work that can be performed at home include data processing and reporting,

General guidelines for physical distancing and movement around the buildings, PPE, hand washing and use of sanitizers

- Covered in departmental policy
- Technicians are encouraged to wear a mask at all times.
- A mask must be worn
    - when more than two people work in the lab
    - when traveling between lab and other areas such chemistry stores, shops as well as other wings.
- Lab coats must be isolated from each other.

Shared Equipment Cleaning

- Covered in departmental policy
- All equipment must be wiped down with sanitizer before and after use.

Changes to Operating Practice

- What functions will not be done anymore? Walk-up LC-MS (OAMS) will not be cancelled. all samples submitted for OAMS will be run by staff/technician.
- What functions normally done on a self-service basis by students will change to technician/staff run? Self-serve mass spec using Agilent GCMS, Bruker HCT and Bruker autoflex MALDI-TOF will changed to technician/staff run.
- What functions normally done by staff cannot be performed anymore? In person mass spec training will not be offered. Air-sensitive samples submission for mass spec and EA

involves physical interaction between technician and students. This cannot be performed (?).
- What new functions need to be provided? A sample submission station will be set up. staff may be called to work on weekend, or flexible work hours.
- What functions can be performed on-line rather than in-person? Is support already available for on-line operations? Manager and technician will be available to answer questions remotely by phone or zoom.
- What functions will be done differently? A station will be setup for users to submit samples so that customers don't need to enter the mass spec lab.

Site specific cleaning, disinfection, and wayfinding

- What cleaning protocols above and beyond those proposed by the department are needed?
- Provide specific instructions for key pieces of equipment and other materials.
- Where will directional arrows, spacing circles, and other directional indicators be placed to help customers implement physical distancing. No customers will need to enter the mass lab.

Staffing Plan

- What portion of time can staff members spend working from home while maintaining productivity?
    - Staff can remotely process the data for all samples run on the instruments, create reports for the samples and email them to the customers.
    - Staff can also communicate with coworkers remotely to discuss works such as instrument maintenance and troubleshooting, and with customers remotely to answer questions.
    - Staff can also work from home on other projects such as writing test summary and developing new method.
- How many staff are going to be affected by childcare or eldercare responsibilities? None that we are aware of.
- How many staff are needed on site each day to maintain an adequate service level? One or two.
- Will staff work in shifts? If so, what is the proposed shift format? Yes. Two technicians will work in the lab alternately.
- What changes to operating hours? Staff may be called to work on Saturday.
- What can be put on-line vs. done in person?
    - Purchase can be done off site
    - Manager will communicate with technician remotely by zoom or phone. Manager and technician will communicate with staff form EES or MES remotely on instrument maintenance or troubleshooting issue. Manager and technician will communicate with customers on questions they have.
- Based on Changes to Operating Practices and Staffing Plan, does the group need assistance? If so, what skills?

    - The waiting time for results will be expected to be longer considering that the lab hours are reduced and all samples will be run by staff. How much longer will depend on the changes of samples from researchers.
    - We may have to put on hold the service for the air-sensitive samples. This normally requires students to prepared samples in certain way and bring the samples to technician at the scheduled times.
    - The required skills are specialized and it is impossible to provide required training during the pandemic.
- Based on Changes to Operating Practices and Staffing Plan, does the group have excess resources? If so, what skills could be utilized by other groups? No.
- List any technology hardware or software needed by staff to work more safely.
    - An all-in-one printer/copier/scanner is needed to generate report form the data on some instruments for customers.
    - Cell phone?

To Do List for Reopening

What	By when	Who will do	Notes
Notify department of new operating procedures, new rules, etc.	Before opening day	Yun	Email
Set up and explain shift schedules to group (having taken health issues, child care, transit into consideration).	Before opening day	Yun	Zoom
Prepare supplies including liquid nitrogen Dewar and gas cylinder, as well as chemicals	Opening day	Yun	
Gas cylinders (nitrogen, helium) and solvents from store	Fist week	Yun and Jenny, Jane	
Cleaning and maintenance of all instruments	Fist week	Yun and Jenny, Jane	
Set up a station for sample submission	First week	Yun	
New sample submission for OAMS	First week	Yun	
Create new account for each group on OAMS	First week	Yun	

Change lock to E315 so that only staff can enter the lab	First week	Yun
Order an all-in-one printer/copier/scanner for staff to prepare reports that cannot done by data system.	First week	Yun

NUCLEAR MAGNETIC RESONANCE SPECTROMETRY RETURN to WORK

When to come to work, when to stay home, getting to work

- *After re-opening, all staff will work between 9:00AM and 5:00PM. Maria will work during Mon-Fri. Tech A and B will either alternate between Mon-Fri and Tue-Sat, or work on fixed scheduled days.*

General guidelines for physical distancing and movement around the buildings, PPE, hand washing and use of sanitizers

- *Following departmental guidelines.*

Shared Equipment Cleaning

- *Dave Williams and Maria will share using instruments in B460. Dave Williams will be asked to use his own keyboard/mice/spinner. Both of them will be asked to clean the surface/ladder rail before and after the use.*

Changes to Operating Practice

- What functions will not be done anymore?
    - ⇨ *No lab training, no in-person meeting as directed by the departmental guideline.*

- What functions normally done on a self-service basis by students will change to technician/staff run?
    - ⇨ *All samples will be run by technicians.*

- What functions normally done by staff cannot be performed anymore?

⇨ *No in-person meeting/training.*

- What new functions need to be provided? Example: mixing and bottling hand sanitizer, making Coved shields
  N/A

- What functions can be performed on-line rather than in-person? Is support already available for on-line operations?

⇨ *All in-person discussion about NMR will be done with ZOOM.*

- What functions will be done differently?
    - ⇨ *All samples will be run by technicians.*
-

Site specific cleaning, disinfection, and wayfinding

- What cleaning protocols above and beyond those proposed by the department are needed?
    - ⇨ *Following department guideline*

- Provide specific instructions for key pieces of equipment and other materials.

    N/A

- Where will directional arrows, spacing circles, and other directional indicators be placed to help customers implement physical distancing.

    N/A

Staffing Plan

- What portion of time can staff members spend working from home while maintaining productivity?
    - ⇨ *Paul will work from home under all permissible situations.*
-
- How many staff are going to be affected by childcare or eldercare responsibilities?
    - ⇨ *Paul is affected by childcare. Tech A and B are still unknown.*
-
- How many staff are needed on site each day to maintain an adequate service level?
    - ⇨ *Three NMR technicians are needed to maintain an adequate data-turnover so as not to drag down researchers.*

- Will staff work in shifts? If so, what is the proposed shift format?
    - ⇨ *Maria will work between Mon-Fri 9:00AM-5:00PM. Tech A and B will alternate between Mon-Fri and Tue-Sat, or work on fixed scheduled days.*

- What changes to operating hours?
    - ⇨ *All will work between 9:00AM-5:00PM. This will be tuned later with the technicians for hour staggering.*
-
- What can be put on-line vs. done in person?
    - ⇨ W*ork order is already on-line.*

-
- Based on Changes to Operating Practices and Staffing Plan, does the group need assistance? If so, what skills?
    - ⇨ *We need two extra technicians with prior NMR experiences to make this plan to meet the bottom line of the department NMR demands.*

- Based on Changes to Operating Practices and Staffing Plan, does the group have excess resources? If so, what skills could be utilized by other groups?
    - ⇨ *No.*

- List any technology hardware or software needed by staff to work more safely.
    - ⇨ *We need two security cameras to monitor the off-hour traffic to the NMR lab traffic (B460, D126).*

To Do List for Reopening

What	**By when**	**Who will do**	**Notes**
Getting spectrometer to work as expected	Before opening day	Paul and Milan	
Set up sample drop-off bench	Before opening day	Tech A, B and Maria	
Training new Tech A and B	First a few days of opening	Paul	
Setting up sample submission protocols and standards to reduce sample handling errors.	Before opening day	Paul	
Installing security cameras in B460 and D126	Before opening day	IT (????)	D126 can be unlocked with both physical key and FOB. A security camera is also needed for monitoring.

Disabling the off-hour card-access to prevent off-hour access in D126 and B353	First a few days of opening	Sabrina (????)

SHARED INSTRUMENT FACILITY RETURN to WORK

When to come to work, when to stay home, getting to work

- Covered in departmental policy
- Will come on a set of days that will suit the needs of the users. Example TWTH or WTHF to support both group A and B users
- Coordination and communication with users will occur from home on other days as well planning work for my campus work days

General guidelines for physical distancing and movement around the buildings, PPE, hand washing and use of sanitizers

- Covered in departmental policy
- A mask must be worn when at all times when running experiments/using instruments in the SIF
- All common computers and work areas must be wiped after use with 70% IPA or equivalent; only chemically compatible surfaces will be wiped with alcohol. Otherwise a combination of a bleach solution or soapy may be used (TBD)
- Use of provided disposable gloves at each station
- To minimize transmission the number chairs will be reduced to enable sanitization; work standing at stations will be encouraged where applicable. Example running a 2-minute FT-IR.

Shared Equipment Cleaning

- Covered in departmental policy and partially covered above.
    - Change all keyboards and mice to Seal Shield keyboards to facilitate disinfection. All stations and surfaces to be wiped down by the user and/or myself after each use. Before each use of an instrument and at the start of the work day, all surfaces potentially used will be wiped down (Benches, keyboards, mice, door handles, chairs etc.)

Changes to Operating Practice

- What functions will not be done anymore?

    - Walk up analysis will no longer be allowed. Temporarily suspend non-Chemistry users from accessing the facility.
- What functions normally done on a self-service basis by students will change to technician/staff run?
    - Possibility of running some samples.
- What functions normally done by staff cannot be performed anymore?
    - Moving of Dewars requiring 2 staff to work too close together and/or moving of instruments
- What new functions need to be provided?
    - Each work station to have disinfecting spray and hand sanitizer. Also face shields will be needed for potential instrument training to occur with physical distancing
- What functions can be performed on-line rather than in-person? Is support already available for on-line operations?
    - All users who would normally use instruments by walk up will be diverted to use the SIF booking system. When feasible Zoom meetings can be used for instrument training. Instrument SOP/instructions will be made available.
- What functions will be done differently?
    - We may consider abandoning card access to reduce transmission at the entrance point or provide disinfecting wipes on either side of the locked entrance

Site specific cleaning, disinfection, and wayfinding

- What cleaning protocols above and beyond those proposed by the department are needed?
    - As mentioned changing of keyboards and mice to washable versions
- Provide specific instructions for key pieces of equipment and other materials.
    - Full instructions on what can and cannot be cleaned IPA and EtOH, as well as directions on how to wash keyboards. All Services that will be using the Keyboards may want to have link to a video on how to clean.
- Where will directional arrows, spacing circles, and other directional indicators be placed to help customers implement physical distancing.
    - There will be arrows that direct users, as they come into the room, to move in a counter clockwise direction to the desired station. All stations have sufficient Physical distancing already in place.
    - Maximum of 8 people in the SIF

Staffing Plan

- What portion of time can staff members spend working from home while maintaining productivity?
    - As mentioned I can work on campus on 3 days that cover users in both A and B shifts and further planning and communication can be done from home.
- How many staff are going to be affected by childcare or eldercare responsibilities?

    - I am a parent of 2 school age children and my wife has recently started back to work. I will require some flexibility in order to provide child care and teaching support for my children
- How many staff are needed on site each day to maintain an adequate service level?
    - One staff member if possible
- Will staff work in shifts? If so, what is the proposed shift format?
- What changes to operating hours?
    - Potential to shift to 10hr days on campus work days
- What can be put on-line vs. done in person?
    - Booking of instruments and potential training sessions
- Based on Changes to Operating Practices and Staffing Plan, does the group need assistance? If so, what skills?
    - If there is a need to switch to running samples this may require training or using other staff members who have used instruments in the SIF
- Based on Changes to Operating Practices and Staffing Plan, does the group have excess resources? If so, what skills could be utilized by other groups?
- List any technology hardware or software needed by staff to work more safely.
    - Users will need access to webcams for potential Zoom meetings. They will also need access to the SIF booking system if they don't already have access

To Do List for Reopening

What	By when	Who will do	Notes
Notify users of new operating procedures, new rules, etc.	Before opening day	Ben	
Procure washable keyboards and Mice	Before opening day		
Set up and explain shift schedules to group (having taken health issues, child care, transit into consideration).	Before opening day		Will coordinate with Ken
If requesting help from teaching lab techs or graduate students, arrange!	As required	Ben	Will coordinate with their supervisors
Set up directional signage in / around service to reduce contact between customers and staff	Before opening day	Ben	

Ensure all users have access to the SIF online booking system	Before opening day if possible	Ben with help from Peter
Ensure there is sufficient PPE, disinfectant spray, sanitizer, and soap.	Before opening day	Ben

CHEMISTRY STORES RETURN to WORK

When to come to work, when to stay home, getting to work

- See the departmental policy for general guidelines.
- Three main staff will be coming to campus while others will stay home.

General guidelines for physical distancing and movement around the buildings, PPE, hand washing and use of sanitizers

- See the departmental policy for general guidelines.
- Stores staff are encouraged to wear a mask at all times.
- A mask must be worn when moving around the store and in the office area.
    - When it is not possible to maintain a 6’ distance from coworkers in stores, the person moving must move quickly and wear a mask.
- Lab coats must be isolated from each other.
- Respirators (for solvent filling) should be cleaned daily per usual method.

Shared Equipment Cleaning

- See the departmental policy for general guidelines.
- Shared equipment (hand trucks, pallet jacks, carts, etc) must be wiped down with soapy water or sanitizer before and after use, and at a minimum at the start and end of each shift.

Changes to Operating Practice

- What functions will not be done anymore?
    - No outside customers allowed in stores.
- What functions normally done on a self-service basis by students will change to technician/staff run?
    - Stores will not be open for self-service. Staff will serve customers at counter pass through.
- What functions normally done by staff cannot be performed anymore?
    - Moving customer pallets or preparing shipments elsewhere in the department.
- What new functions need to be provided?
    - Picking of orders.

- What functions can be performed on-line rather than in-person? Is support already available for on-line operations?
    - Orders will need to be placed online by chemistry requisition for chem customers or via email (storz@chem.ubc.ca) for non-chem customers. Include requested pickup date.
    - Must wait for pickup confirmation before coming to Stores.
    - Walk up customers for Supply Center will need to order prior to coming to stores (email or phone). Orders can still be placed on customers' credit cards.
- What functions will be done differently?
    - Stores will only be open limited hours. For Stores customers from 10am-11am and 2pm-3pm. For Supply Center customers from 9am-10am and 3pm-4pm. Hours to be confirmed.
    - Orders will not be picked same day (demand dependent). Preplanning is needed to ensure pick up of items during specific shift days.
    - Purchase limits may apply to some items.
    - PPE purchases (gloves, eye protection, respirators) will require a hygiene assessment be filled out and only once allocation is approved by SRS will PPE be sold to a customer (chemistry or non-chem – same process for all customers).
    - Only one customer will be served at a time (stores or Supply Centre – not one of each, but only one total).
    - Receipt slips will not be signed by customer. The storesperson will write the name of the person picking up the order and put their own initials on the receipt slips. Filed as per usual. Supply Center will write the name of the person picking up the order on the sign out sheet.
    - Solvent cart will be placed in hallway for drop off of solvent containers for filling.
    - No entry for collecting distilled water. Containers can be placed on solvent cart for filling.
    - Laundry hamper for lab coats will be placed in the hallway.

Site specific cleaning, disinfection, and wayfinding

- What cleaning protocols above and beyond those proposed by the department are needed?
    - Clean counter and Plexiglas shield at counter pass through after each opening time.
- Provide specific instructions for key pieces of equipment and other materials.
    - Use spray sparingly on electric pallet jack handles, and Lift'n Buddy handles. Wipe off excess immediately.
    - Dry ice room door, scoop, key for non-chem customers and scale will need to be cleaned routinely after each opening time. Scale and book can be placed on counter so customers do not need to enter Stores. But storeperson can record amount in the book.
    - Gas cylinder carts will need to be cleaned after each use. Have disinfectant spray in the cages? Or at cart lock up area?
- Where will directional arrows, spacing circles, and other directional indicators be placed to help customers implement physical distancing.

- Lines will be taped on floor outside counter area to demonstrate distancing for customers waiting to pickup orders.

Staffing Plan

- What portion of time can staff members spend working from home while maintaining productivity?
  - Elan, Alex and Chithra will be onsite M-F, regular hours.
  - Xin-Hui will continue to work from home, and will be the back-up should any of the three onsite staff call in sick.
  - George and Karen will continue to work 100% from home.
- How many staff are going to be affected by childcare or eldercare responsibilities?
  - Potentially two. Will confirm if they have alternative options.
- How many staff are needed on site each day to maintain an adequate service level?
  - Three people.
- Will staff work in shifts? If so, what is the proposed shift format?
  - No, three staff will be in Monday through Friday with regular hours.
- What changes to operating hours?
  - Stores will only be open limited hours. For Stores customers from 10am-11am and 2pm-3pm. For Supply Center customers from 9am-10am and 3pm-4pm. Hours to be confirmed.
- What can be put on-line vs. done in person?
  - Purchasing already online.
  - Ordering moved online for picking.
- Based on Changes to Operating Practices and Staffing Plan, does the group need assistance? If so, what skills?
  - Yes. With reduced staff per shift and additional work of picking all orders we will be unable to get all orders ready in a timely manner, especially during the first while back. More staff will allow for either quicker picking of orders (same day possible) or to expand the hours available for pickup service.
  - Order picking.
  - One person per day.
- Based on Changes to Operating Practices and Staffing Plan, does the group have excess resources? If so, what skills could be utilized by other groups?
  - No
- List any technology hardware or software needed by staff to work more safely.

To Do List for Reopening

What	By when	Who will do	Notes
Notify department of new operating procedures, new rules, etc.	Before opening day	Karen	

Explain staffing plan to stores group.	Before opening day	Karen	
Arrange plan/help from teaching lab techs or graduate students.	Before opening day	Karen	
Post signage for new hours, procedures on outside doors.	Before opening day	Elan	
Tape lines on floor outside pick up window, 6ft apart	Before opening day	Elan	
Replenish stock, bump up some items	Now	Xin-Hui and Karen	
Determine items for purchase limits and set those limits	Before opening day	Xin-Hui and Karen	
Have Chithra fit-tested for solvent filling, trained on solvent filling	Schedule for first week onsite	Chithra/Karen/Xin-Hui or Elan	

STRUCTURAL CHEMISTRY FACILITY (X-Ray) RETURN to WORK

When to come to work, when to stay home, getting to work

- See the departmental policy for general guidelines.
- X-ray lab staff will be assigned to shift A or B
- On days when there are no new samples to work on or receive, or maintenance to be carried out, staff will work from home

General guidelines for physical distancing and movement around the buildings, PPE, hand washing and use of sanitizers

- See the departmental policy for general guidelines.
- Only one person will be permitted in any of the X-ray lab spaces (E214, E215, E217) at a time. Measures will be put in place (signage on doors) to ensure people know when a room is already occupied.
- X-ray lab staff will wear PPE whenever feasible

Shared Equipment Cleaning

- Shared equipment (microscope, goniometer heads, sample prep stations, desktops) must be wiped down with sanitizer/disinfectant before and after use, and at a minimum at the start and end of each shift.
- PXRD sample holders are to be washed with soap and water only.
- Instruments (particularly door handles on enclosures) and keyboards/mouse must be properly sanitized before and after each use.

Changes to Operating Practice

- Samples are to be dropped off between 8am-10am to allow for efficient use of the workday. There will be a sample drop-off site outside of E217. Students will contact Anita or Brian to let us know that they plan to drop off a sample. Any samples being returned will be placed there as well.
- Students/clients should check the online scheduler to confirm that the facility will be able to receive samples at the scheduled time – just in case staff have to stay home due to symptoms or for some other reason.

- Sometimes appointments are necessary for sample drop-off – this will be confirmed on a case-by-case basis.
- Additional drop-off times for non-urgent samples will be available but irregular; times will be posted on the scheduler.
- External customers will be encouraged to ship/courier their samples to our shipping department rather than to the main office or the X-ray Lab. Arrangements can also be made to receive samples outside of the department.
- All samples must be well-labeled and accompanied by a filled-out sample submission form (a copy should also be sent by e-mail).
- If/when we return to trained users in the X-ray lab, student users will have to schedule time not only at the instruments, but at the microscope and workstations, so that there is no overlap.
- Consulting with students about results, sample quality, etc., will have to change. Consultations about results can be done via email, online, or by phone.
- Consultations about sample quality or, particularly with PXRD, sample assessment for proper XRD protocol is complicated. These often need to be done in person. Sometimes this can be done quickly so physical distancing and face coverings could be sufficient; if the weather is nice we could meet outside of Chemistry with physical distancing. Alternatively, for sample assessments that may take a little bit longer, we have a portable workbench that we should be able to set up with a plexiglass barrier. This bench can be easily moved around and cleaned regularly. We would need the Mechanical shop to build us a portable plexiglass barrier with feet (free-standing).
-

Site specific cleaning, disinfection, and wayfinding

- The microscope will need to be cleaned after each use. Special care must be taken not to damage the optical components. Special cleaning materials may be required
- Goniometer heads are handled each time a sample is changed. These will need to be cleaned after each use.
- These areas need to be wiped down and disinfected after every use: sample preparation areas, diffractometer door handles, keyboards, mouse (mice?), workstation desktop, lab door handles (in/out).
- PXRD sample holders are to be washed with soap and water only.
- Alcohols are not permitted in E214 for safety reasons (possible contact with Pt catalysts) so the Mr. Clean disinfectant and soap/water are to be used in this lab.
- If we limit access to the lab to staff and trained users, and we communicate when we arrive and leave the lab, we should be able to maintain one person in the lab at a time. We will establish some kind of signage that can be used to indicate when a lab is occupied. If we can do that we shouldn't need directional arrows.
- A spacing circle will be useful if we set up the moveable workbench with plexiglass shield.

Staffing Plan

- What portion of time can staff members spend working from home while maintaining productivity?
  - For single crystal data collection, we need to be physically present to maintain the instruments (fill LN2) and to mount samples and start data collection. On a good day this can take 1-2 hours. Everything else can be done from home.
  - PXRD data collection times change depending on the sample(s) and sample volumes so this is hard to project.
- How many staff are going to be affected by childcare or eldercare responsibilities? One staff member has childcare responsibilities, however the type of schedule we're proposing should not come in conflict with these responsibilities. Another staff may have eldercare responsibilities in the future.
- How many staff are needed on site each day to maintain an adequate service level? One staff member is required on site to maintain 'adequate' service.
- Will staff work in shifts? If so, what is the proposed shift format? If need be we will maintain a strict 'shift A and B' schedule.
- What changes to operating hours?
  - Physical facility hours: A staff member will be on site from 8-10 am at a minimum, we will leave once any planned maintenance has been done if there are no samples to work on/process. Necessary in-person consultations will be done by appointment. Additional availability will be shown on the online scheduler.
    - For single crystal data collection, we need to be physically present to maintain the instruments (fill LN2) and to mount samples and start data collection. On a good day this can take 1-2 hours. Everything else can be done from home.
    - PXRD data collection can take a lot of time because of the different sample preparations, instrumental configurations, and data collection protocols. The workhorse instrument has an intermittent issue with the sample changer mechanism so Anita needs to be around to ensure that the data collection has been successful. The new Empyrean is still being set up with protocols and in-person testing is required. It is anticipated that Anita could spend full days in the lab collecting data. 10+-hour workdays spent collecting data is possible (but hopefully not routine) depending on the samples and configurations needed. Data processing will be done off campus but may also be done on site when Anita is waiting for the data collections to finish.
  - Online hours: Availability will be by e-mail, online, and phone during the assigned shifts. Off-shift e-mail availability may be necessary to set up appointments or discuss facility issues but this will be limited.

- What can be put on-line vs. done in person? Consultations regarding results can be done online. Very often samples need to be seen in person to see if they are of sufficient quality to run, or, particularly with PXRD, they need to be assessed to decide how best to collect the data.
- Based on Changes to Operating Practices and Staffing Plan, does the group need assistance? If so, what skills? No assistance required.

- Based on Changes to Operating Practices and Staffing Plan, does the group have excess resources? If so, what skills could be utilized by other groups? I can't think of excess resources, however we're happy to help if you can think of any.
- List any technology hardware or software needed by staff to work more safely. Plans are in place for all X-ray staff to be able to work remotely via laptop. Instruments still need to be controlled in person, however efforts are being made to be able to access and process all data remotely. This may require purchasing of extra licenses, which will be dealt with as required.

To Do List for Reopening

What	By when	Who will do	Notes
Notify department of new operating procedures, new rules, etc.	Before opening day	Brian	With Anita's input
Set up cart/shelves for samples/work to be dropped off on	Week of re-opening	Brian and Anita	We have shelving units that we could use, may take a day or two to figure out what works best for us.
Set up and explain shift schedules to group (having taken health issues, child care, transit into consideration).	Week of re-opening	Brian and Anita	There's only two of us to accommodate, I think both of our schedules are fairly flexible
If requesting help from teaching lab techs or graduate students, arrange!	N/A		
Set up directional signage in / around service to reduce contact between customers and staff	Week of re-opening	Brian and Anita	E214 is too small a space, it will have to be one person at a time. Something can be set up in E215, but I think we can keep it to one at a time if we communicate well.