

SOP Title: Thermal Management Research Laboratory (JHE 104, 104A, 106B) COVID-19 Procedures	Re-opening Phase 1	Revision Effective Date: Rev. 3 2020/06/12
Department/Unit/Research Group TMRL Management Research Laboratory	Relevant Rooms JHE 104, JHE 104A, JHE 106B	
Author(s): J. Girard, J. Cotton, C. Ching	Approved By:	

1 Purpose of SOP

1.1 To outline the policies, procedures, and guidelines, specific to the Thermal Management Research Laboratories located in JHE 104, JHE 104a, and JHE106B during the phased return-to-workplace during the COVID-19 pandemic.

1.2 This SOP does not replace existing procedures for working alone, training, etc.

2 Scope

2.1 This SOP applies to all faculty, staff, students, volunteers, visitors, and contractors to the Thermal Management Research (TMRL) Laboratories (JHE 104, 104A, 106B).

2.1.1 The SOP will be posted at both key card access doorways to the Laboratories. Figure 1 will be reproduced and posted separately as a practical and actionable summary of this SOP. The SOP is also available on the Department of Mechanical Engineering website.

<https://www.eng.mcmaster.ca/mech/resources#health-safety>

3 How to Use this Document

3.1 This document is intended to:

3.1.1 Define the document scope (Section 2) and permissible activities (Section 4),

3.1.2 Provide high level procedural reference via an illustrative flow chart (Figure 1),

3.1.3 Support the illustrative flow chart (Figure 1) through procedural sections (Section 6 and 7),

3.1.4 Provide additional information of specialized supplies (Section 9)

3.1.5 Provide reference to the University contact tracing procedures (Section 10)

3.2 To effectively use this document, the reader must reference the illustrative flow chart (Figure 1) and use the respective sections within this document to provide additional procedural details for identified tasks.

4 Permitted Activities

4.1 To maintain appropriate numbers of students/staff/faculty within the laboratories to satisfy physical distancing requirements only the following types of activities will be permitted during Phase 1, all other activities are not permitted and, if possible, should be done from home:

- Conducting experiments authorized by the designated Laboratory Supervisor (see Section 6 for instructions on obtaining approval)

4.2 Future Phases may allow for:

- Test facility fabrication

4.3 As in usual times, the following applies:

- No use by untrained students, staff, or faculty.

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- Working Alone Procedures

5 Related Documents

- 5.1 [McMaster Health & Safety Guidelines – Essential Research \(April 2020\)](#)
- 5.2 [McMaster Workplace COVID-19 Employee Checklist](#)
- 5.3 [UNIFOR COVID-19 Updates and Resources](#)
- 5.4 [McMaster RMM 304 - Working Alone Policy](#)
- 5.5 [Ontario COVID-19 Self-Assessment Tool](#)
- 5.6 [New Yorker – Article on Workplace Restart](#)
- 5.7 [Guidelines for Building Evacuation During COVID-19](#)

6 How to obtain Authorization for Laboratory Use

6.1 Access to the workspaces is governed by the principles described below and illustrated in the flow chart in Figure 1, which is divided into three distinct steps.

6.2 Access to the TMRL laboratories will be limited to the approved researchers, or unless required as part of regular Facilities activities (e.g. Facilities Services, Security, etc), which must all follow the procedures outlined in Figure 1.

6.3 Any users of this space must complete TMRL Laboratory COVID-19 SOP Training. Initially this training will be performed verbally with potential users but as usage numbers increase, the training will move to Avenue to Learn (this section to be updated). A list of trained users will be maintained by the Laboratory using a spreadsheet shared on MS Teams; all trained users will be invited to a private MS Teams group. **Contact Jeffrey Girard (Girardjn@mcmaster.ca) for more details.**

6.4 Any users of this space must obtain approval for access to the space as well as specific equipment they expect to use, through the process identified in the MS Teams (the specific process may evolve over time - it will begin with [MacSafe](#) for Lab Access scheduling and shared MS Teams spreadsheet for Shared Equipment scheduling). **This shall be requested 24 hours in advance and a request shall be made for each day that the space/equipment is to be used.**

- Approval will be granted by the Research Supervisor or designate (see Table 1 below for contact details).
- Users must provide contact information (phone number)
- Approval will be based on the specifics of the spaces/equipment requested by the user, such that density of occupancy is kept below 1 person per room per day unless COVID-19 appropriate measures have been employed such as:
 - Staggering of access to the space to ensure 1 person per room at a time;

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- Physical distancing can be maintained (2m minimum distance between users, greater distance preferred – see section 7.3 for room-specific requirements);
- Barriers are installed to separate users;
- If physical distancing and barriers are not possible, an appropriate mask will be worn (see definition in Section 1.36), and time in close contact should be minimized.

Table 1: TMRL Laboratory Supervisor

Room	Supervisor Name	Contact Information
JHE 104	James Cotton	cottonjs@mcmaster.ca
JHE 104A	James Cotton	cottonjs@mcmaster.ca
JHE 106B	Chan Ching	chingcy@mcmaster.ca

6.5 On the expected date of use, the user will complete the McMaster University employee/researcher checklist prior to entering the laboratory (<https://hr.mcmaster.ca/app/uploads/2020/05/Workplace-COVID-19-Employee-Checklist.pdf>). If the user finds that they “do not seem to have symptoms or be part of an at-risk group” the user may come to the space. If the user is given any other recommendation, the user is not permitted to use the space. In this case it is highly advisable for them to follow the recommendations and if reasonable, for them to inform the Facility Manager they are no longer able to use the space.

- If a potential user is ill or becomes ill, the user must stay home (or seek medical attention). Access to the space could put all users at risk.
- Some “symptoms” may occur due to allergies, etc., such as coughing or sneezing and access for these users is permitted; in order to minimize concern from others, appropriate hygiene (hand washing, coughing procedure) must be followed at all times.

7 Laboratory Usage Procedures and Requirements

7.1 Arrival at the space. Elevated hygiene and cleaning protocols will apply immediately upon entry into the space:

7.1.1 Upon entry into the space through the west JHE hallway doors (closest to JHE 104), the user will use hand sanitizer to clean their hands, then clean and sanitize all personal items (including but not limited to phone, keys, computer, etc) at the cleaning station (see procedure in section 7.2).

7.1.2 The user will then wash their hands with soap for a minimum of 30 seconds.

7.1.3 The user will then be required to sign-in via the MacSafe sign-in/out form (<https://macsafe.circlab.ca>).

7.1.4 The user can then access spaces (laboratories/rooms) required to perform their work and approved by the laboratory supervisor.

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7.1.5 The user will open/unlock internal doors so that minimal touching of door handles is required (using mag-lock hold open feature if available) while ensuring that a reasonable level of security is maintained.

7.1.6 The user will follow all posted signage.

7.2 Cleaning Procedure

7.2.1 A so-called “Cleaning Station” will be set up near JHE 107. Another cleaning station will be set up on a rolling cart for use in “remote” areas (i.e. temporary use in undergraduate lab spaces).

7.2.2 A schematic of the cleaning station is shown in Figure 2 and the procedure is as follows:

- Place items on “not cleaned” side (left side of work area).
- Sanitize your hands with hand sanitizer
- Use an appropriate disinfectant for the items and place them in the “Clean” area.
- Wash your hands thoroughly with soap and water at the designated hand-washing sink.
- May use a tray or other container to contain items on both sides of the station.

7.3 Physical Distancing Requirements / Room Density / Travel Through Spaces

7.3.1 General

- All users (including Facilities Services or contractors) will enter the “core” space through the west hallway (closest to JHE 104) using Keycard Access. A Physical key is only to be used if there is damage to the card reader. Except for washroom access.
- All users (including Facilities Services or contractors) will exit the “core” space through the east hallway (closest to JHE 106B), except for Mechanical Engineering Technical Staff for hallway storage access.
- All users must knock on doors before entering or exiting through a door. In the event of a “collision”, particularly in “collision area” identified in Figure 3, the individual entering a space will yield and allow for 2m distance as the room occupant exits. Due to the nested room arrangement the following hierarchy will apply: **Laboratory Rooms (JHE 104, 104A, 106) > First Floor Mech Eng Hallway (Core) > JHE**

7.3.2 JHE 104

- Access to this space will be limited to one user at a time (no exceptions).

7.3.3 JHE 104A

- Access to this space will be limited to one user at a time (no exceptions).

7.3.4 JHE 106

- Access to this space will be limited to one user at a time (no exceptions).

7.3.5 Other Spaces (i.e. Building entrances, hallways, washrooms)

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- Users should follow all posted access recommendations
- Users should at all times limit proximity to all other occupants in order to minimize exposure. While this might prove challenging, verbal communication in advance of a “collision” should be attempted.

7.4 To safely complete the approved task within the designated laboratory, the following procedures must be followed:

7.4.1 All laboratory equipment SOPs must be followed. **Note:** As many procedures in a laboratory environment are not fully codified in SOPs due to the inherent near-infinite methods of using the custom equipment, the users’ training, experience and knowledge should be acknowledge such that unusual risk is not taken; no user should exceed their abilities or attempt to perform activities beyond their training threshold.

7.4.2 Users must wash their hands with soap and water for 30 seconds every 60 minutes or less. The nearest hand washing station is found in the hallway (core space) (Refer to Figure 3)

7.4.3 Users must avoid touching unnecessary items/surfaces.

7.4.4 Users must maintain distance (a halo of 2m or more) between other users or visitors in the space.

7.4.5 If approval to use shared equipment (and access to the room) was given by the laboratory supervisor, the user must only enter the designated laboratory to retrieve/return the shared equipment. Once use of shared equipment is complete, the user must disinfect touch points and return the equipment as outlined in Section 7.2).

7.4.6 When accessing washrooms, the user must follow the procedures outlined in Section 7.3.1 when exiting/entering TMRL laboratory spaces. Upon return to the laboratory space, the user is required to follow the procedures outlined in Section 7.1. It is recommended to use single occupant washrooms with mechanically assisted doors, such as the unisex washroom located adjacent to JHE 103 and on the first floor of the Gerald Hatch building (JHEH).

7.4.7 As per existing laboratory SOP, the consumption of food is not permitted within a laboratory space. Due to the limited access to sanitary rooms, the consumption of food must be conducted outside the building.

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7.5 If the user is using shared equipment (hand tools, calibration equipment, etc), the user must disinfection of hand tools and equipment touch points. In principle, this following shall apply:

- Bring tools and equipment to cleaning station for disinfection and follow procedures outline in Section 7.2;
- Use disinfectant to clean / wipe down equipment touch points

7.6 Prior to departure, the user will wash their hands for 30 seconds with soap and water, then use disinfectant to clean / wipe down any touch points or surfaces they used while in the space, including but not limited to door handles, light switches, desk or bench surfaces, keyboards, mice, phones, etc.

7.7 In the event of a building alarm or evacuation, users should follow directions outlined in [Guidelines for Building Evacuations During COVID-19 Pandemic](#).

8 After Using the Laboratories

8.1 Upon return home, and within 2 hours of departure from the space, the user will fill out the sign-out / feedback forms through the MS Team channel. This form will include a list of spaces used while on campus (i.e. the user may have spent most of their time in JHE 104, but also retrieved/returned equipment in/to JHE 106B, accessed the recommended JHE washrooms, etc). It will also include a statement that the user completed all cleaning procedures in all mechanical engineering spaces (i.e. not common spaces such as hallways or washrooms). Finally, it will include a space where relevant comments, feedback or observations can be made. The Laboratory Supervisor or delegate will review these forms regularly.

9 Specialized supplies

9.1 Disinfectant

- All tools, machine tools, and other touch points in the laboratory, should be properly cleaned and disinfected after each use by the user according to the procedures outlined in the above sections. Cleaner/disinfectant shall be from the approved [COVID-19 list for hard surfaces](#).
- Note that the user should be familiar with the SDS for the disinfectant to be used.
- Disinfectant will be located in each room/space and at the cleaning station

9.2 Hand Sanitizer

- Hand sanitizer shall be used when hand washing is not possible or according to the procedures outlined in the above sections. Hand Sanitizer shall be from the approved [COVID-19 list](#).

9.3 Soap

- Soap will be provided by Facility Services at the sinks in the space.

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9.4 Masks/Gloves

- TBD – Based on recommendations of Faculty of Engineering Return to Workplace Committee.

9.5 Signage:

9.5.1 The following signs will be posted in a visible location near the entrance to the Mechanical First Floor Wing hallway:

- COVID-19 SOP Flow Chart with QR code to SOP
- Public Health Ontario: Social Distancing Poster
- Public Health Ontario: Cover your Cough Poster

9.5.2 The following signs will be posed in a visible location near the sanitation station:

- COVID-19 SOP Flow Chart with QR code to SOP
- COVID-19 Cleaning Station Instructions

9.5.3 The following signs will be posted in a visible location near the hand washing sinks:

- McMaster Handwashing Poster

10 University Contact Tracing Procedures

1.1. TBD – This section will reference the Universities procedures in the event of a positive COVID case

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11 Figures

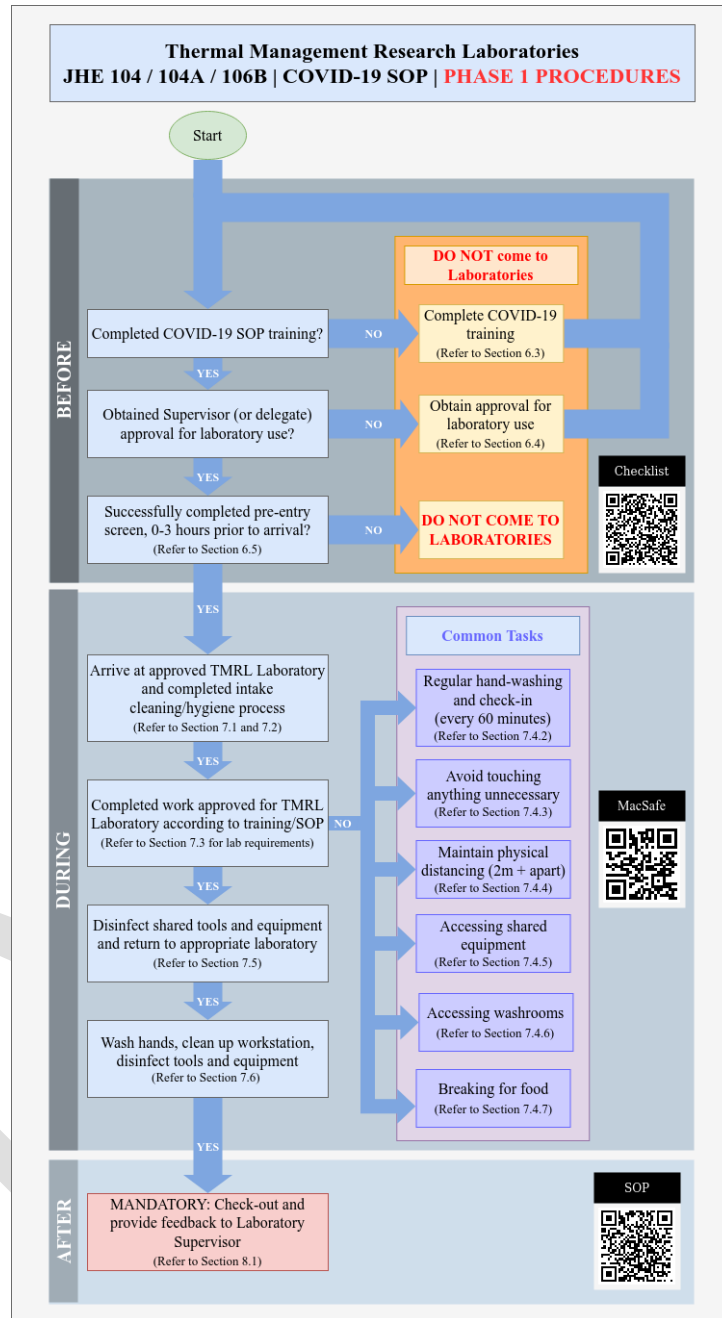


Figure 1: Access to workspaces - flow chart.

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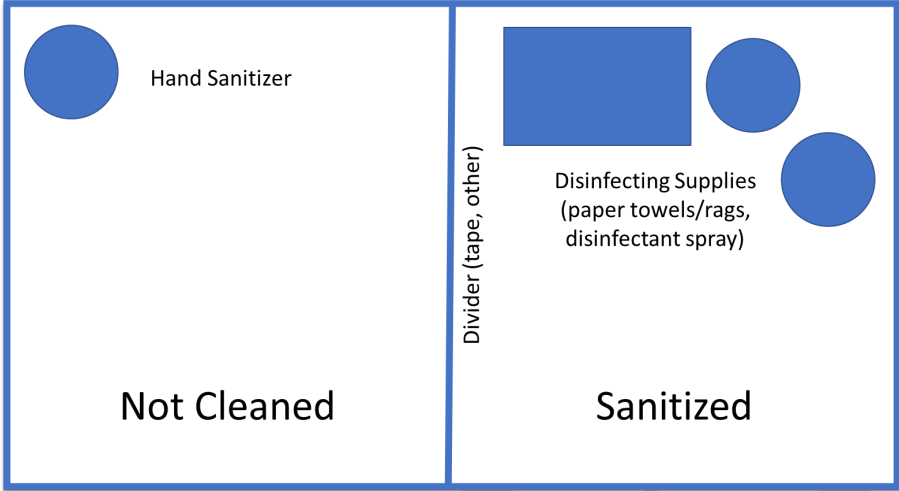


Figure 2: Schematic of the Cleaning Station. Cleaning Products are defined elsewhere in this document.

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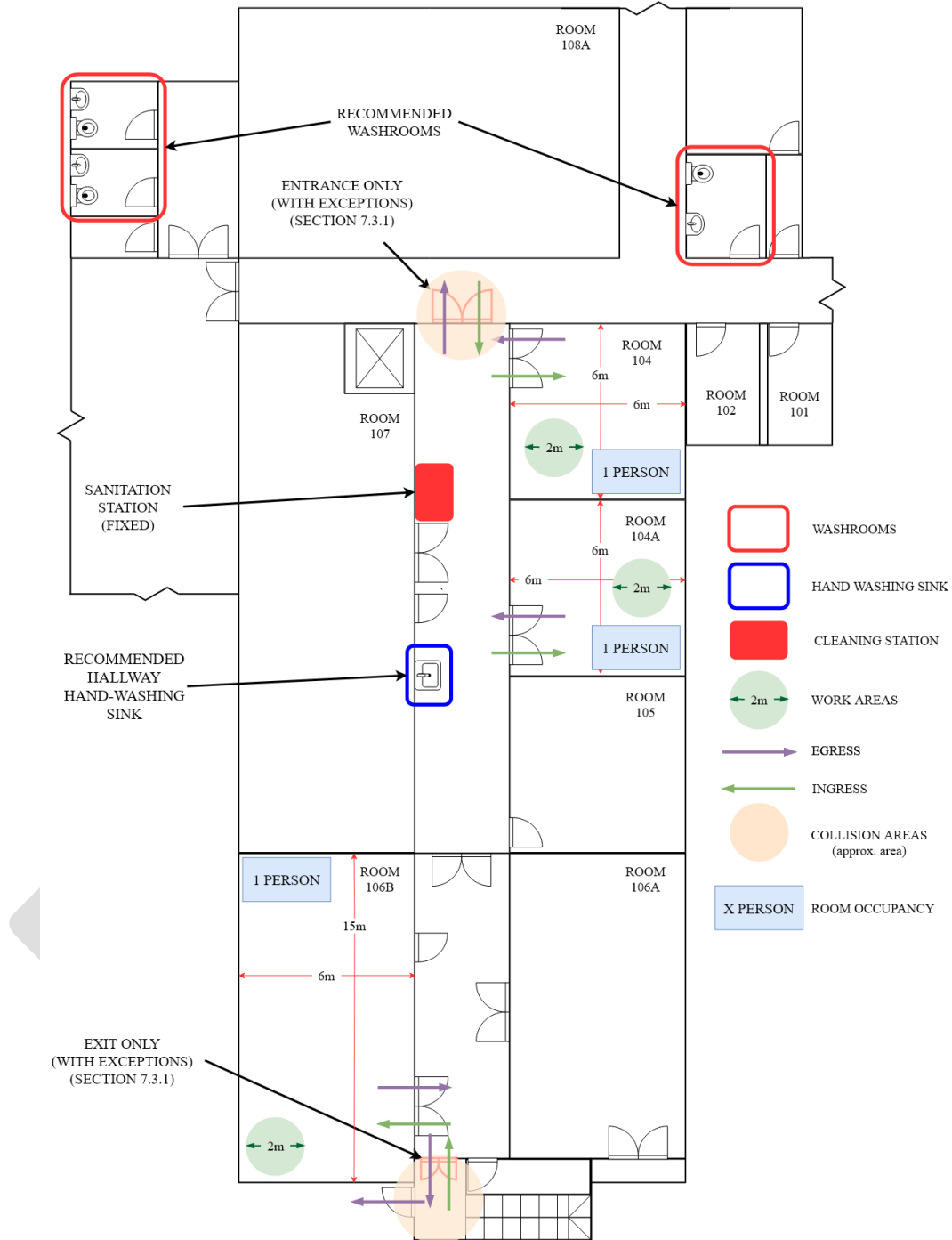


Figure 3: Layout of TMRL Laboratory and "Core" Spaces