



# PREPARING FOR EASING RESTRICTIONS IN FEDERAL LABORATORIES

**AS THE APPROACH FOR A RETURN TO THE PHYSICAL WORKPLACE IS BEING PLANNED, IT'S IMPORTANT THAT EMPLOYEE CONCERNS AND CONSIDERATIONS BE AT THE FOREFRONT, INCLUDING IN LABORATORY SETTINGS.**

## FIVE PRINCIPLES SHOULD BE TOP OF MIND IN THE LABORATORY CONTEXT:

1. **Health and safety** – the main concern for a successful adaptation of the return to the workplace.
2. **Accommodating the needs of individuals and families** – demonstrating adaptability and flexibility for employees' personal circumstances to optimize productivity of mandated science while maintaining mental health. This includes flexibility in incorporating the option of working from home and other flexible arrangements. Employees are informed about the mental health support services and resources available, such as the [Wellness Together Canada: Mental Health and Substance Use Support](#) portal and their Departments' [Employee Assistance Program \(EAP\)](#).
3. **Transparency** – creating open communication opportunities to develop and share information is as essential as preparing the physical space.
4. **Agility to optimize mandated federal science responsibly** – adjustments to research agendas and/or regulated testing and the use of laboratories should be planned to respect both the type and volume of work and enable new opportunities of delivering mandated federal science. This includes creating secure information options to enable flexible work arrangements while supporting mandated science needs.
5. **Adaptability** – protocols and guidelines will adapt to unique science requirements as well as building, regional and sector considerations. Controls, monitoring and reporting will inform further adaptations as necessary.

## GENERAL LABORATORY CONSIDERATIONS AND CONTROLS

Control measures to limit the transmission of a communicable virus have become an everyday reality for all. Measures to prevent transmission may vary from workplace to workplace and there can be different perspectives and comfort levels. The laboratory setting is different from other workplaces and will have additional considerations. Laboratories normally have two types of space: the space dedicated to the scientific and research work with access mainly limited to scientists and researchers; and a mechanical space that contains all the mechanical equipment supporting that type of laboratory space and related equipment. Typically, the mechanical space is accessed by the operators of this specialized equipment, often by specialized contractors.

While laboratories already have detailed protocols and procedures against hazards and risks, the COVID-19 reality requires additional considerations as organizations begin easing restrictions to the laboratory setting and plan for potential outbreaks. There are two important perspectives that must be balanced: the scientific facility considerations for control measures and wellbeing of staff.

The purpose of this document is to provide a series of consolidated considerations for laboratory managers and staff as we move toward a phased transition to the new laboratory workplace. They are organized into two sections: (1) laboratory facilities aspect; and (2) science considerations.

A repository of best practices and guidelines developed by federal science organizations has been created and is available at [Guidelines for Easing Restrictions—Federal Science](#).

## LABORATORY FACILITIES

Depending on the science activity and Occupational Health and Safety requirements, the following engineering controls are considered.

### AIR CIRCULATION

- ☐ Increase the amount of outdoor air being provided to the space above code requirements.
- ☐ Increase the hours of operation of the heating, ventilation, and air-conditioning (HVAC) systems to promote increased dilution of contaminants and improved air circulation that promotes removal of fine particles.
- ☐ Dedicated laboratory ventilation containment systems—Give special attention to the requirements to maintain negative or positive air pressure in laboratory spaces or to maintain the safe operation of fume, biological or laminar flow hoods.

### CONTRACTORS AND REPAIR TECHNICIANS

- ☐ Provide recommended building specific procedures in an accessible and culturally appropriate format for all visitors, contractors and technicians to promote physical distancing and avoid close contact situations:
  - ▶ Single point of entry,
  - ▶ Dedicated space, including stairwells, may be warranted for work contracts spanning multiple days to minimize interactions between laboratory staff and contractors.
- ☐ Contractors and repair technicians should wash their hands with soap and warm water for at least 20 seconds and/or use alcohol-based hand sanitizers.
- ☐ Contractors and repair technicians should not be allowed to move freely or unescorted between floors or other work areas.
- ☐ Restrict, where appropriate, access to cafeterias and break rooms for contractors to reserve these spaces for laboratory employees.
- ☐ When on-site repair/maintenance is required:
  - ▶ All tools and equipment brought in by the contractor/technician should only be touched by that person.
  - ▶ The contractor must clean and disinfect the equipment before moving to another area of the lab.
  - ▶ In the case of contractors using on-site equipment, that equipment must be cleaned and disinfected by laboratory staff before and after use.

### OUTBUILDINGS

- ☐ Greenhouses, chemical storage buildings, etc., require the same level of attention as laboratories.

### EQUIPMENT AND SAMPLES FROM THE FIELD

- ☐ Field operations for collecting samples and field research have additional considerations, in particular in terms of interactions with the local community [see Tip Sheet #3B].
- ☐ Quarantine equipment and samples for several days to ensure decontamination.
- ☐ Have disinfectant supplies to spray down goods and handling equipment (pallet trucks, carts, cases, etc.). Having infrared no touch thermometers on site would be a great asset.

## SCIENCE CONSIDERATIONS

While scientific work will vary between types of laboratories, the tips below will apply to most as they pertain to optimizing physical distancing and minimizing contact between people in the context of the laboratory workplace.

## NUMBER AND FLOW OF OCCUPANTS

- ☐ Many laboratories already function 24 hours per day.
- ☐ Stagger schedules and breaks and promote flexible working hours for employees accessing the labs.
- ☐ Provide clear, accessible and concise signage to direct the flow of people and materials.
- ☐ Post maximum capacity room signs in commonly used spaces.
- ☐ Visually indicate appropriate spacing in work areas by using tape or other markers.
- ☐ Consider creating additional space between work areas through the removal of unused equipment or by leaving some work areas unused.
- ☐ Tape off meeting rooms and other areas that are deemed unnecessary to use at this time (this eliminates the need to maintain and disinfect areas in preparation for future phases and offers swing space should an area require corrective cleaning procedures).
- ☐ Every person is required to wash their hands with soap and warm water for at least 20 seconds and/or use alcohol based hand sanitizers when entering and leaving the building, a laboratory and when moving between laboratory units within the building.

## HANDLING PROCEDURES

- ☐ Reconsider standardization or centralization of common and routine tasks in order to minimize the handling of goods.
  - ▶ Minimize the number of people tasked with a laboratory activity/role.
  - ▶ Reduce the number of people picking up/dropping off items at shipping and receiving to one at a time.
  - ▶ Reduce the number of people distributing common consumables to one at a time.
  - ▶ Implement workspace cleaning and disinfection at the start and end of each activity and shift.
  - ▶ Consider touchless equipment.
- ☐ Where possible, dedicate science spaces or equipment to single operators or consider limiting the number of people who have access to the space or item.
- ☐ Consider reducing or modifying the sharing of spaces and equipment by using a more centralized mode of operation and assigning work activities to a single employee or a small, dedicated team.
- ☐ Where the activity does not enable physical distancing, for example when restraining animals for research procedures, additional measures to limit person-to-person transmission of virus should be considered. Measures could include respiratory protection and dedicated pairings of employees.

## PERSONAL PROTECTIVE EQUIPMENT (PPE) CONTROLS

PPE is already in use in most laboratories to protect employees from current hazards (such as chemicals, combustibles, heat, cold, sharp objects or live animals). Site-specific Occupational Health and Safety (OHS) committees may advise the use of additional PPE, for example, a face mask or gloves following local risk assessments, in instances where physical distancing is not conducive to mandated laboratory tasks. Specific guidance on PPE related to COVID-19 can be found at Tip Sheet #4.

- ☐ Laboratory units routinely using PPE as part of their normal activities should continue to do so with the caveat that PPE practices do not contradict measures to reduce the transmission of a virus.
  - ▶ Face shields should no longer be shared and should be sanitized between uses.
- ☐ Where new PPE measures to prevent person-to-person transmission of COVID-19 interact with other PPE, each situation should be reviewed for incompatibility, for example:
  - ▶ Face shields near chemical baths or liquid nitrogen tanks,
  - ▶ Gloves or gauntlets to protect against extreme heat, cold, sharps, animals or shielded rooms for explosives or combustibles testing,
  - ▶ Hearing protection during mechanical or vibration testing activities.

- ☐ Training on control measures will be provided based on local risk assessments. Although many laboratory staff have knowledge on the proper use of PPE, individual preferences to use additional PPE in a laboratory setting should be respected where possible. Specific guidance on this can be found at Tip Sheet #4.
- ☐ Ensure that work areas have the appropriate tools to practice good preventive practices:
  - ▶ Tissues,
  - ▶ Alcohol-based hand sanitizers,
  - ▶ Plastic lined wastebaskets,
  - ▶ All other required disinfectant products that do not contravene laboratory protocols.
- ☐ Employees should clean and disinfect high touch workspaces at the start and end of each work period with disinfectant products that do not contravene laboratory protocols (e.g., wipes) as well as other surfaces, as appropriate, such as telephones, computer keyboards, chair armrests, supplies, and any other work equipment or tools.

## VISITORS

- ☐ All visitors, contractors, repair technicians and others are to wash their hands with soap and warm water for at least 20 seconds and/or use alcohol-based hand sanitizers when entering and leaving the building, a laboratory, and when moving between laboratory units within the building.

## LABORATORY SHIPPING AND RECEIVING AREA

Laboratory shipping and receiving areas are essential components of laboratory operations. They function as areas facilitating the shipment and receipt of goods such as diagnostic samples, critical test reagents and consumables.

Most laboratories require tracking of materials to a level suitable for Chain of Custody legal proceedings and/or ISO quality certification. Laboratories that continued to operate throughout the pandemic have already implemented modified procedures to mitigate the spread of virus in high-traffic areas. Considering that goods and samples that arrive in laboratories originate from all over the country and are often stored under conditions that may preserve viable pathogens, the following is a list of consolidated considerations for laboratory shipping and receiving areas:

- ☐ Moderate/minimize personnel traffic in shipping and receiving areas, consider touchless tracking equipment.
- ☐ Modify the distribution procedure of goods to laboratory staff by having laboratory units collect goods rather than having one employee distribute packages throughout the building.
- ☐ Following reception of goods, receiving area staff should segregate and disinfect the packages (as appropriate) in preparation for pickup by laboratory unit employees.
- ☐ Call laboratory units when goods are ready for pick-up or standardize pickup times to ensure staggered visiting when goods are available for pick-up.
- ☐ Establish a priority for the distribution/collection of packages, for example:
  - ▶ Samples for diagnostic tests that either come in with temperature control parameters and/or have a tight turnaround time for test results should take priority over less urgent and/or temperature stable shipments,
  - ▶ Perishable/non-perishable items.
- ☐ Restrict the use of paper in favour of scanning and sending paperwork electronically.