**Workplace Safety Orientation & Training Needs Assessment & Record**

**MCML 218 Growth Chamber Facility Training Guide**

**Faculty of Land and Food Systems**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Start Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

End Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Position:

[ ]  Volunteer

[ ]  Undergraduate

[ ]  Visiting Faculty/Student

[ ]  Graduate Student

[ ]  Postdoctoral Fellow

[ ]  Faculty Member

[ ]  Laboratory Assistant

[ ]  Research Assistant

[ ]  Lab Manager

[ ]  Research Associate

[ ]  Staff

[ ]  Other:

Supervisor:

 Name: Phone#: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Department: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Email address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

As a new member in the Faculty of Land and Food Systems, you must be provided sufficient information to safely work in our facilities and know how to safely work in the LFS growth chamber facility. Please make sure you have already read and signed off the LFS General Guide – a comprehensive document that reviews UBC health and safety policies and procedures for all UBC workers.

This LFS Growth Chamber Facility Training Guide for MCML 218 serves to supplement the LFS General Guide for students, staff and faculty that will be working in a growth chamber facility. All sections in this guide must be read and signed off by both the individual and his/her supervisor or principal investigator (PI) before accessing the growth chamber facility in LFS.

1. **General Features in LFS Growth Chamber Facility**

**MCML 218** – These growth chambers are controlled by LFS Operations. These chambers are manufactured by Conviron, there are three reach-in chambers and two larger walk-in chambers. The growth chambers monitor and control light, temperature, and humidity.

[ ]  I will send an email to lewis.fausak@ubc.ca to schedule an orientation for the Growth Chamber Facility at MCML 218.

[ ]  I am aware of the general safety information outlined above.

1. **Important Contact Information**

 Important emergency contacts at UBC

1. Call 911 for Emergency
2. RCMP Non-Emergency

Phone: 604-224-1322

1. Campus Security

Phone: 604-822-2222

1. AMS SafeWalk

Phone: 604-822-5355

1. First Aid

Phone (Students and Visitors): 604-822-2222

Phone (Faculty and Staff): 604-822-4444

For **MCML 218 CHAMBERS** immediate assistance at LFS, please contact

1. Lewis Fausak

Email: lewis.fausak@ubc.ca Phone: 604-816-5641

1. Andy Jeffries

Email: Andy.Jeffries@ubc.ca Phone: 604-603-1619

For support directly from the manufacturer, please contact

**FOR MCML 218**: Jamey Matheson at Conviron

Email: JMatheson@conviron.com or convironservice@conviron.com

[ ]  I have read and understood all the important emergency contact information provided and felt confident to handle any potential circumstances that may happen while working in the Growth Chamber Facility.

1. **General Operations and Safety in the LFS Growth Chamber Facility**
2. Shared Space Etiquette and Safety
* Always maintain cleanliness in the space.
* Remove any unnecessary clutter and garbage from the space as needed.
* Materials that must be kept in the room should be labelled with researcher name, date and organized to prevent tripping hazards.
* Do not remove any shared equipment from the space.
* If you notice something is broken or showing signs of wear, place a sign on the affected growth chamber, and notify:
	1. Lewis Fausak

Email: Andy.Jeffries@ubc.ca Phone: 604-603-1619

* 1. Andy Jeffries

Email: Andy.Jeffries@ubc.ca Phone: 604-603-1619

[ ]  I have read and understood the Shared Space Etiquette and agreed to keep the space clean and organized.

1. Working Alone in the Growth Chamber Facility

Individuals are **NOT** permitted to work alone unless they have completed the required training courses. The following guidelines will be applied if a worker must work alone or after hours (evenings and weekends) in the growth chamber facility:

* Call 911 in case of an emergency
* Worker must have a contact number of a research colleague, supervisor

etc. readily available. Use the UBC Vancouver Safe App to set up a notification system.

* Worker must set up a buddy or check-in system, so that another person

 is working nearby or they are able to contact regularly to ensure safety of the worker in the facility. The buddy or check-in system must also be provided the facility location (Room #26, 2357 Main Mall) and the Campus Security number 604-822-2222 and to activate help immediately if contact was lost with the worker for a sustained period of time.

* Worker must be well aware of all the risks associated with working in the Growth Chamber Facility and know what to do in each situation.

[ ]  I have read and understood the Work Alone Guidelines and agreed to keep a robust buddy system in place in case of emergency.

1. Operation of LFS Growth Chambers

A hands-on training will be provided by Lewis Fausak (lewis.fausak@ubc.ca) once this document has been completed and uploaded. Printed documents for operating the chambers are located in MCML 218.

1. Maintenance Guidelines

**General:**

* Use cleaning, sealing, lubricating agents that do not cause harm to plants, cultures, or insects in the growth chambers. Call 911 in case of an emergency
* All changes and updates to the growth chambers must be logged in the growth chamber maintenance log book located within the room.
* Maintain general tidiness of the room by sweeping and mopping regularly.

**Cleaning the chamber (required after every experiment):**

* Vacuum and/or sweep the growth chamber to remove any debris.
* Remove grates, then vacuum growth chamber drainage area to remove any debris
* Use germicidal, grease cutting detergent (e.g. dawn dish soap) and a microfibre cloth to wipe down the inside of the chamber, the rubber seals on the door frame, outside of chamber, and door handles.
* Spray down the chamber with a hose and spray nozzle. Use a squeegee to remove excess water.
* Treat all surfaces of the chamber with 10 % bleach
* Use ammonia based window cleaner to clean viewing ports and wipe down touch panel.
* Warm the chamber up to its maximum temperature for one day to ‘bake off’. Be sure to open the fresh air and exhaust ports during this sterilization period.

**Chamber Maintenance:**

* Drains: inspect drains and re-seal with epoxy coating if worn or leaking.
* Doors: adjust hinges, latches, and frame to make them light, gas, and air tight.
* Gas caps: inspect gas caps and replace worn or cracked caps.
* Spray nozzles: Inspect spray nozzles for wear or buildup, and wipe down with cleaner. Record humidity levels monthly.
* Temperature sensors: inspect sensor and record ambient levels monthly.
* Lights: Inspect lights and record light intensity monthly. Clean light bulbs and ballasts with a damp rag when needed.
* Condenser: Inspect condenser monthly for signs of wear and accumulation of debris.
* Use germicidal, grease cutting detergent and a microfibre cloth to wipe down the inside of the chamber, the rubber seals on the door frame, outside of chamber, and door handles.
* Spray down the chamber with a hose and spray nozzle. Use a squeegee to remove excess water.
* Use ammonia based window cleaner to clean viewing ports and wipe down touch panel.
* Periodically dust the interior control panel area as needed with a dry microfiber cloth.

**Preparation of all chambers for Storage:**

* Clean chambers as above.
* Turn off chambers.
* Ensure system is free of water.
* Leave door slightly ajar to prevent moisture buildup.
* Cover condenser with tarp to protect from dirt and rain.

[ ]  I have read and understood the maintenance protocols and agree to maintaining the chambers as directed by my supervisor.

After reading through the above, meet with your supervisor or PI to discuss any points that are unclear. If necessary, consult with a member of the LST or any LFS contacts listed in Section B.

<https://my.landfood.ubc.ca/operations/health-safety/>

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[ ]  I understand the items that were discussed on this form, the basics of working safely, and the specific safety requirements that must be followed to work in the LFS Growth Chamber Facility.

[ ]  I understand that The LFS General Guide (<https://my.landfood.ubc.ca/new-to-lfs/>) must be read and signed off, in addition to this form.

**New member:**

Name (print): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Supervisor/Designate:**

Name (print): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Upon completion of this form, please upload the LFS General Guide, as well as an electronic version of this signed form to** <https://training-report.landfood.ubc.ca>**.**