

Health, Safety, and Environment Program Guide

Department of Materials Engineering
Frank Forward Building

[Last Revision: August 2025]





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Emergency and Safety Contacts

EMERGENCY:

911

Police | Fire | Ambulance | Hazardous Spill

NON-EMERGENCY	
RCMP	604-224-1322
Vancouver Fire and Rescue	604-665-6010
BC Ambulance Service	604-872-5151
SECURITY & PERSONAL SAFETY RESOURCES	
Campus Security (Vancouver)	604-822-2222
AMS SafeWalk	604-822-5355
FIRST AID RESOURCES	
Closest Defibrillator	www.srs.ubc.ca
UBC Faculty, Staff, and Student Workers	604-822-4444
UBC Students	911 or Student Health at UBC Hospital 604 822-7011
Visitors	911 or Urgent Care at UBC Hospital 604-822-7222
SAFETY RESOURCES & SAFETY & RISK SERVICES CONTACTS	
MTRL LST Co-Chair (Heli Eunike)	604-822-5648
MTRL safety information	www.mtrl.ubc.ca/safety-stores/
Sexual Violence Prevention and Response (SVPRO)	604-822-1588
Report an Accident or Incident	www.cairs.ubc.ca
Asbestos Safety	604-822-8772
Biological and Radiation Safety	604-822-4353
Chemical Safety	604 827-3409
Emergency Management & Business Continuity	604-822-1237
Health and Safety - Faculty of Medicine	604-827-1982
Health and Safety - Student Housing and Hospitality Services	604 827-2671
Health and Safety - Facilities	604 822-1885
Safety & Risk Services	604-822-2029
Safety Programs	604-822-6513
Student Health	604-822-7011
Equity and Inclusion	604-822-6353
Counseling Services	604-822-3811
Ergonomics	604-822-9040
Occupational Hygiene	604-822-6098



Element 1: Introduction

This guide is developed by Local Safety Team (LST) of the Department of Materials Engineering (MTRL) to provide an overview of the comprehensive Health and Safety Program (HSP) Manual.

MTRL LST focuses on activities in the Frank Forward building (6350 Stores Road, Vancouver) that are associated with MTRL. Although MTRL have activities in the Advanced Materials Process Engineering Laboratory (AMPEL), all activities in AMPEL are within the domain of the AMPEL safety program. Frank Forward building is shared with the Department of Mining Engineering but the MTRL and Mining LSTs are distinct.

All MTRL faculty, staff, and students are strongly recommended to read “MTRL Health and Safety Program Manual” located under MTRL’s website.

The University of British Columbia (UBC) is committed to providing a safe, health, secure, environmentally friendly workspace and learning environment for its employees and students through continuous implementation of **Plan-Do-Check-Act** cycle. Through cooperative efforts of the whole department, we will be able to carry out the objectives of [Policy SC1: Occupational and Research Health and Safety](#).

To ensure the overall success of a Health and Safety Program (HSP), a system of evaluation must be in place. These evaluations/reviews are to be designed to:

- 1) Identify the strengths of the Unit's HSP;
- 2) Identify areas of non-compliance (with WorkSafeBC and UBC Policy requirements);
- 3) Identify where the HSP could be further improved so as to achieve higher levels of health, safety and compliance; and
- 4) Assist the Unit in reducing workplace injuries and the resulting operational disruption.

Once the evaluation has been completed, identified improvements must be implemented using a standardized **Plan-Do-Check-Act** continual improvement cycle:

- 1) **Plan:** Developing an action plan based on risks and opportunities to improve the health and safety program in your area of responsibility;
- 2) **Do:** Prioritize recommendations and assign accountability for implementation of plan;
- 3) **Check:** Monitor and measure activities and processes with regard to health and safety objectives. Document a report of the results; and
- 4) **Act:** Take actions to continually improve health and safety performance to achieve the intended outcomes.

MTRL LST holds monthly meetings to provide site specific safety information to Joint Occupational Health and Safety Committee (JOHSC) and the LST’s role is to:

- Assist local supervisory staff Identify hazards in the workplace;
- Participate in, discuss, and review investigations within their work area;
- Conduct, discuss and review workplace inspections;
- Collaborate with JOHSC in the development of health and safety initiatives;
- Recommend actions that will improve the effectiveness of the Health and Safety Program;



- Educate and promote WorkSafeBC regulatory requirements to faculty and staff in their area; and
- Identify and escalate items beyond their local scope of control to the JOHSC.

MTRL LST carries out semi-annual inspections to conform with Workers Compensation Act and the Occupational Health and Safety Regulation while local area supervisors carry out monthly inspections. The inspection forms can be found under MTRL's website. For more information on general lab health and safety, please refer to the comprehensive Safety Manual or visit UBC's [Safety & Risk Services](#).

RESOURCES

- [JOHSC and LST General Inspection Checklist and Report](#)
- MTRL Specific Semi-Annual Inspections Forms
 - [Semi-Annual Classroom Safety Inspection Form](#)
 - [Semi-Annual Lab safety Inspection Form](#)
 - [Semi-Annual Offices Inspection Form](#)
 - [Semi-Annual Shops Inspection Form](#)
 - [Semi-Annual Storage areas Inspection Form](#)
- [Monthly Self Inspection Checklist for Lab Users](#)
- [Monthly Laboratory Inspection Form](#)



Element 2: Orientation, Training, and Documentation

According to WorkSafeBC, units need to provide a workplace [orientation](#) for workers when they:

- Begin a new job;
- Go to a new worksite or department;
- Face new hazards, such as working with new equipment; and
- Perform new tasks.

As a new employee, there are [required trainings](#) that must be completed to meet WorkSafeBC and UBC requirements and the Supervisor must ensure:

- Workplace and job-specific orientation and training is provided (by the supervisor or trainer with subject matter expertise);
- UBC Mandatory Training Courses are completed;
- Program Specific Safety courses are completed; and
- All orientation and training are documented and maintained.

Note: The assessment of training needs pertaining to work with biological substances must be documented and available for review by federal and institutional inspectors along with proof of training completion and attainment of competency.

Safety Orientation and Training Records

- **Mandatory and Program-Specific Training**
 - Maintain SRS Course certificates for mandatory and program specific courses
 - Maintain completed safety orientation documents
- **Site Specific Orientation Records** – ideally, Part 2 of the New Worker Orientation
- **Job Specific Training when hazards are present**
 - While this job-specific training may be delivered by the supervisor or a trainer with expertise, the supervisor is responsible for training and confirmation that an adequate level of proficiency has been attained. Signing off on an employee’s training completion testifies trainee’s competency and is a legally necessary demonstration of supervisory due diligence.
 - The supervisor is responsible for making their workers aware of all foreseeable hazards they may be exposed during their work. Where a hazard is identified:
 - A risk assessment may be necessary to assess the risk posed by the hazard;
 - Determine how to best control that risk using the hierarchy of controls;
 - Establish a documented procedure for working with or in proximity to the hazard; and
 - Written procedures and training should always be provided together.

Note: Training delivery and verification of competency must always be documented where there is a potential for worker exposure. Job Specific training records provide a legal record that workers have been trained to competently recognize and deal with hazards as outlined in the procedures.

- **Third Party Training**



- Some procedural training is best provided by a specialist (third party) for that topic. If the training is provided by a third party:
 - The training must be adequately specific for the job tasks performed;
 - Attendance must be documented, and a course syllabus kept as proof of training; and
 - Create a log indicating the name of the trainer, trainee, date of training, and name of third-party course/training session.

Additional Safety-Related Records

- [Risk Assessments](#)
- Meeting minutes and crew talks where health and safety issues were discussed and noted
- Local Safety Team and JOHSC meeting minutes
- Inspection reports and records of actions taken to solve problems or for continual improvement
- Equipment logbooks and maintenance records
- Incident Investigations - automatically stored in [CAIRS](#)
- Statistics on the frequency, severity of accidents, type of injuries, etc.
- Supervisors' notes and logs of health and safety contacts with workers
- Records showing the use of progressive discipline to enforce health and safety rules
- [Building Emergency Response Plan](#)
- Sampling and monitoring records of exposures to harmful substances
- Inventory records and federal permissions pertaining to hazardous materials
- Noise exposure measurement records and hearing tests
- Other documents applicable to the type of work (e.g. confined space permits)
- [Working alone policy](#)

RESOURCES

- [MTRL Departmental Safety Orientation](#)
- [Required training for all UBC workers](#)
- [Safety Programs Training](#)
- [Biology Safety Training](#)
- [Chemical Safety Training](#)
- [Radiation Safety Training](#)
- [Occupational Hygiene](#)
- [Risk Assessment Guidance Document](#)
- [Risk Assessment & Safe Work Procedure \(SWP\)](#)
- [WHMIS Training](#)
- [Spill Clean Up Procedure](#)
- [SDS Database](#)
- [Centralized Accident/Incident Reporting System \(CAIRS\)](#)



Element 3: Emergency Procedures and First Aid

In the event of a medical emergency all Faculty, Staff and Paid/Practicum Students should first call 911 and then first aid at 604-822-4444. This will ensure the quickest response for assistance.

BUILDING EMERGENCY RESPONSE PLANS AND PROCEDURES

MTRL's building emergency response plan can be found [here](#).

Depending on the nature of the emergency, response will be provided by Vancouver Fire and Rescue Services, the local detachment of the RCMP, Campus Security and/or SRS.

When an evacuation is initiated, Floor Wardens are responsible to check their designated floors and urge others to evacuate the building. Floor Wardens report to the building emergency response director or their alternate during such event. The Department head retains authority for direction additional actions in an emergency.

UBC OCCUPATIONAL FIRST AID PROGRAM

The UBC Occupational First Aid program will provide first aid coverage for all Faculty, Staff, and Paid/Practicum Students for the UBC Point Grey Campus, 24 hours a day.

Faculty, Staff and Paid/Practicum Students can call 604-822-4444 (or 2-4444 on a campus phone) which will summon trained first aid attendants, to the location of the injured person.

The First Aid attendants will:

- Promptly provide first aid at a level of care within the scope of their first aid training;
- Objectively record observed or reported signs and symptoms of injuries and illnesses in the first aid record;
- Refer workers with injuries and illnesses beyond the scope of their training to medical attention; and
- Arrange for transport of a worker to medical aid, as required (Attendants can decide whether an injury requires rapid transport, or to transport to UBC Hospital or clinics on campus via first aid vehicle).

Supervisors must ensure that signs clearly indicating the location of, and how to call for, first aid are posted conspicuously throughout the workplace, and communicated to the workers in the Unit.

AUTOMATED EXTERNAL DEFIBRILLATORS (AEDS)

AEDs have been installed in a variety of UBC buildings to provide quick response in the event of a cardiac arrest. The defibrillator provides quick access to help and can increase the chance of saving someone's life. You can download a list of [UBC Vancouver Buildings with AEDs](#) .

Using a defibrillator is safe and straightforward, and its light weight means it can be carried to where it is needed. Once activated, the device provides easy-to-follow voice instructions and automatically determines if someone requires a life-saving shock. Defibrillators cannot do harm and will only deliver a live-saving shock if it is required in the case of cardiac arrest. It will not shock someone accidentally. When



an AED is used, a CAIRS report must be completed, and you must contact Campus Security who will retrieve the used AED and replace it with a temporary unit.

RESOURCES

- [AED Locations at UBC Vancouver](#) ([General AED Information](#))
- Building Emergency Response Plan ([Sample Template](#))



Element 4: Reporting and Investigating Incidents/Accidents

WorkSafeBC requires the following types of incidents to be investigated:



After contacting the appropriate emergency services, the following incidents must be reported to SRS:

- A serious injury to or the death of a worker;
- A major structural failure;
- A major release of a hazardous substance;
- A fire or explosion that had potential for serious injury;
- A blasting incident causing personal injury;
- A dangerous or unusual incident involving explosives;
- A diving incident that causes death, injury or decompression sickness requiring treatment; and
- A major exposure to a pathogenic or radioactive substance.

During work hours, 8:00am – 4:30pm Monday- Friday at 604-822-2029. After work hours, contact Campus Security at 604-822-2222 and the call will be forwarded to SRS’ 24/7 on-call personnel.



SUPERVISOR RESPONSIBILITY:

It is the responsibility of the supervisor to investigate an incident that has occur in their area. Subject matter experts and workers familiar with the associated work are available to assist as required.

- 1) Educate all workers under their supervision to report all incidents that have occurred in the workplace;
- 2) In the event of an injury, all workers are aware of how to access first aid by contacting 2-4444 (Point Grey Campus only);
- 3) Completing an incident report in [CAIRS](#);
- 4) Informing injured workers to initiate a WorkSafeBC claim by calling 1-888-967-5377 if they have seen a doctor or missed any time from work beyond the date of the incident; and
- 5) Ensuring corrective actions are implemented and effective.

IMPORTANT: The Worker and Supervisor are able to submit an incident report in [CAIRS](#)

NOTE: Incidents involving exposure to or theft of biological or radiological substances must also be reported immediately and directly to the appropriate UBC Compliance Committee by calling 604.822. 4353 or 604.827.5111.

CENTRALIZED ACCIDENT/INCIDENT REPORTING SYSTEM

The [Centralized Accident/Incident Reporting System \(CAIRS\)](#) is used to:

- Report incidents;
- Obtain required information to initiate a WorkSafeBC claim for work-related injuries/illnesses; and
- Document incident investigations.

RESOURCES

- [Accident/Incident Reporting Program](#)
- [UBC Incident Site Investigation Guide](#)