Guidelines on Working Alone in the Laboratory

Scope

This document is intended to be applied in situations where employees or students work alone with hazardous materials (chemical, biological or radiological material), and/or hazardous equipment in the laboratory at UofT, and is especially necessary for working after hours, during weekends and holidays where it can be more difficult to obtain speedy assistance.

Definitions

Working Alone can occur at any time of day. The defining feature is that the person doing the work is not able to summon someone verbally, for instance by calling out, over a period of more than roughly 15 minutes.

Risk is the potential for a negative outcome from the use of a material or piece of equipment that has hazardous properties combined with the way in which the material or equipment is used. The determination of whether the risk presented by a material or process is higher or lower hazard is the responsibility of the PI as the hazard presented is quite specific to the quantities used as well as the specifics of how the material will be used.

Higher hazard materials are typically toxic, corrosive, oxidizers or other highly reactive or toxic materials that have a WHMIS 2015 category of 1 or 2 and which have the word “danger” on the label or SDS. Use of flammable materials of category 1 or 2* or any that have the symbol due to reactivity would also constitute a higher hazard use of a material. **Lower hazard materials** are typically irritants, items with the exclamation mark (“less serious health effects”), health hazards (human figure symbol) and have a category of 3 or lower. Usually the word on the label or SDS would be “warning”.

Responsibilities

Principal Investigator (PI)

The Principal investigator is responsible for ensuring that work conducted alone is approved before commencement and is responsible for reviewing, or having approved by a delegate, any risk assessment conducted, and hazard controls proposed. The PI must also ensure the work procedures to mitigate the hazards are appropriately implemented.

Department

The department is responsible for ensuring that all PI’s and staff/students are aware of the need to use this guideline when assessing work conducted alone.

Student/Staff Member that will be Working Alone

The person working alone is responsible for seeking approval of the PI or delegate, and to conduct and submit to the PI or delegate a risk assessment for the activity, as well as the hazard controls and work procedures.

* The use of flammables with open flame e.g. Bunsen burner and ethanol is consider a higher risk activity

Risk Assessment

In order to conduct work safely the situation should be addressed, and the activity triaged into one of the following categories:

Risk Level	Description	Mitigation
Higher Risk	The activity involves the potential for fire, out of control reaction or explosion and/or involves the use of highly toxic, highly corrosive, pyrophoric or otherwise dangerous chemicals. The danger must be an immediate or acute hazard rather than a long term, chronic hazard Doing alignment of open beam class 3b and 4 lasers, would also fall in this category.	It is encouraged that someone be in the room while the activity is being conducted. If this is not possible: Conduct a working alone assessment that includes emergency procedures, risk mitigation, and check-in or buddy system as needed. A working alone safety plan should be available and approved by the supervisor. Emergency communications availability needs to be part of the assessment.
Moderate Risk	Wet lab work that does not involve highly hazardous materials or where those materials are being used in a highly controlled environment, or using amounts that are very limited	No plan required but communication with Campus Police in the event of an emergency must be available.
Lower Risk	Office, desk or paperwork even if occurring in the lab, the use of low hazard instruments, the use of low hazard and non-toxic materials.	No mitigation required, and no safety template needed

Please note that young or inexperienced workers and students[†] should not be working alone without supervision. Persons under the age of 18 and undergraduate students are not permitted to work alone with hazardous materials or hazardous equipment. Please refer to the EHS Youth in Labs Guidelines for more details.

Some working alone activities are covered by different documents, for instance biosafety level 3 activities and some work with radioactive materials.

Training

All person working with hazardous chemicals must have sufficient training and instructions for safe work practices and demonstrated minimum standards of competence before working without supervision, including at a minimum the training laid out in the EHS Training Matrix.

Basic training for the working alone process including who to call and what to do in an emergency is to be provided by the PI to the staff or students that will be working alone. The training should include calling 911 and Campus Police and the Campus Police number should be posted in the lab.

The “Working Alone Safety Plan Template” can be completed as proof of training and as an emergency plan. The Template should be given to the affected student(s) and a copy should be kept by the PI.

The training should be documented, could be quite simple, including verbal, and could be delegated to a representative of the PI - for instance, the lab manager.

[†] Undergraduate students, junior or inexperienced graduate students, volunteers, or workers.

Working Alone Safety Plan Template

Numbers to Call in the Event of Emergency (circle all that apply):

Campus Police 416-978-2222 OR at UTM 905-569-4333

Student name(s): _____

_____

Lab room(s): _____

Principal Investigator Name: _____

Brief Description of Activity to be conducted. Note this may be general or quite specific.

Hazard presented by materials used and overall risk of the activity.

Mitigation to be used (for example personal protective equipment, buddy system, ventilation etc.).

Location of “buddy” on floor if applicable: _____

Phone number of “buddy”, ideally cell phone if service is available: _____

Lab phone list as substitute: _____

PI cell and/or home phone: _____

Delegate cell and/or home phone: _____

Spill response 416-978-7000 (8am-4pm M-F only)

Departmental Emergency number (if applicable): _____

Plan is valid for:

A) Start date: _____
B) End date: _____

Optional link to calendaring system:

Authorizing Person Name and Signature (PI or delegate): _____

A copy of this completed form is to be kept by both the PI and by the student. The student should ensure a copy is readily available in case of emergency.