

UNIVERSITY OF LETHBRIDGE  
PHYSICAL PLANT AND OPERATIONS

HEALTH & SAFETY PROGRAM

**ORGANIZATIONAL COMMITMENT**

## ORGANIZATIONAL COMMITMENT

### RESPONSIBILITIES

The ultimate responsibility for establishing and maintaining the Occupational Health and Safety Program on campus rests with the Board of Governors of The University of Lethbridge. Basic policies, which govern the activities and limitations of the Health and Safety program, are proposed by the President of The University of Lethbridge and issued under the final authority of the Board of Governors.

The primary responsibility for providing and maintaining a healthy and safe campus environment on a day-to-day basis lies at the operational departmental level. Specific responsibilities of all Physical Plant staff are directly proportional to their operational authority and are listed below.

The Physical Plant Department requires that all supervisors and employees adhere to the policies, regulations and procedures set forth in this manual as well as the policies and regulations of The University of Lethbridge and the Alberta *Occupational Health & Safety Regulation and Code*. This manual does not replace the standards set forth by The University of Lethbridge or the Alberta *Occupational Health & Safety Regulation and Code*. Where there are discrepancies the stricter will apply.

#### **Executive Director of Physical Plant:**

It is the responsibility of the Executive Director of Physical Plant to maintain a healthy and safe working environment within the jurisdiction, to monitor and exercise control over assigned areas and implement the following designated safety-related responsibilities:

- Providing management the support and leadership necessary for the overall planning, implementation and execution of The University of Lethbridge safety policies within their areas of responsibility.
- Incorporating adequate provisions for safe working practices and conditions in operational policies and procedures and in programs and projects.
- Monitoring and evaluating safety performance within their areas of responsibility and recommending measures to bring about improvement.

#### **Superintendents, Managers & Supervisors**

All Superintendents, Managers and Supervisors within Physical Plant are responsible for ensuring that facilities and conditions under their jurisdiction are monitored and maintained in a safe manner at all times. Special emphasis should be given to ensuring that adequate training is provided prior to tasks being assigned. It is expected that preference will be given to following established safe work procedures over expedient hazardous shortcuts in all operations. Further responsibilities include:

- Ensuring compliance with the Alberta Occupational Health and Safety Regulations and Code;
- Planning and executing all activities in a manner that promotes compliance with The University of Lethbridge safety policies.
- Ensuring that individuals in their areas of assignment have been given adequate direction, training and instruction in the safe performance of their work, and that it is performed without undue risk.
- Ensuring that employees are provided with all tools and equipment (including Personal Protective Equipment (PPE) complete with instructions on its proper use), necessary to

carry out their duties without jeopardizing their health and safety or the health and safety of others.

- Ensuring that work areas are inspected at regular intervals to prevent the development of unsafe conditions and practices.
- Authorizing the action necessary to correct substandard conditions or procedures.
- Ensuring all incidents and near misses are reported and investigated, and action taken to prevent a recurrence.
- Making every effort to ensure that medical treatment is received for all injuries.

## **Employees**

All Physical Plant employees are subject to the health and safety requirements established in this manual, to departmental operational procedures and to all other applicable regulatory requirements. Responsibilities of employees include:

- Observing all safety rules and procedures established by the regulatory authorities and The University of Lethbridge.
- Consulting with their Supervisor on the safe way to perform a task which is considered hazardous or is known to be hazardous, prior to beginning the task.
- Performing a Hazard Assessment before commencement of any task, involving the physical environment, to ensure all control measures are in place to safely execute the task without risk to themselves, other employees or the public.
- Wearing Personal Protective Equipment when required to ensure health and safety are not jeopardized.
- Promptly reporting hazardous or unsafe equipment, facilities, conditions, procedures or behavior to a supervisor, making suggestions for their corrective action and taking corrective action where authorized.
- Immediately reporting to a supervisor all work related incidents or injuries and obtaining first-aid treatment without delay.
- Reporting promptly to a supervisor any treatment by a physician following a work related injury.

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**HAZARD IDENTIFICATION**

## **HAZARD IDENTIFICATION**

A consistent hazard evaluation process was used throughout the Physical Plant departments for hazard identification of the various job tasks performed, and equipment used. Workshops were conducted to train employees and managers on how to evaluate the hazards associated with their jobs.

***The employees performing the tasks, and operating the equipment conducted all evaluations.***

## **HAZARDS**

For each job task and piece of equipment evaluated the following OH&S industry standard hazards were taken into consideration:

1. **Falling Objects**
2. **Chemical Exposure**
3. **Exposure to Heat / Cold**
4. **Dust / Vapours**
5. **Light Radiation**
6. **Electrical**
7. **Noise**
8. **Eye Injury**
9. **Repetitive Strain / Motion**
10. **Lifting**
11. **Slips / Falls**
12. **Ice / Docks & Roads**
13. **Rotating Equipment**
14. **Pinch Points**
15. **Cuts**
16. **Eye Strain**
17. **Fire**
18. **Asbestos**
19. **Radioactive Exposure**
20. **Working Alone**
21. **Mold**

The above list shall be used as a guide in reference to hazards identified throughout this manual.

## **HAZARD ASSESSMENT**

The fundamental principle of a Health and Safety Program is to reduce injury and disease to employees. One of the most important aspects of a health and safety program is hazard assessment. Hazard identification is crucial in the workplace.

### **Conducting a Hazard Assessment**

1. The job tasks are listed.
2. Compile a master list of the jobs.
3. Determine the hazards associated with the jobs. Each hazard is determined as if there are not controls in place. For example, chemical splash without safety goggles.
4. Rank the **exposure**
  - 1 = unlikely: a person is exposed to the hazard 1x a year or less
  - 2 = occasionally: a person is exposed to the hazard 1x month or less
  - 3 = often: a person is exposed to the hazard more than 2x but less than 4x per month
  - 4 = frequently: a person is exposed to the hazard 1x or 2x per week
  - 5 = continuous: a person is exposed to the hazard 1x or more per day
5. What is the **probability of occurrence**
  - 1 = unlikely to occur
  - 2 = some chance
  - 3 = could occur
  - 4 = good chance
  - 5 = will occur if not attended to
6. What are the **consequences**
  - 1 = insignificant: a person receives a very minor injury, no damage to property
  - 2 = first aid or minor property damage: a person administers first aid to self
  - 3 = injury results in lost time, seeking medical help or significant property damage
  - 4 = injury results in permanent disability, serious health effects or property damage
  - 5 = injury results in a fatality, or there is major property damage
7. Add the numbers to reach a total risk rating. A risk rating of:
  - Serious (11 – 15)** means the hazard must be attended to immediately, prior to the commencement of the job. Controls **must** be put into place. A safe job procedure **must** be in place prior to the commencement of the job.
  - Moderate (6 – 10)** means the hazard requires attention. Controls **should** be put into place. A safe work procedure **should** be in place prior to the commencement of the job, but could be attended to once the job has commenced. Employees **must** be aware of the hazard. The safe work procedure **must** be in place prior to the completion of the job.
  - Low (3 – 5)** means the hazard requires monitoring. Controls are recommended. A safe work procedure is recommended.

## **HAZARD ELIMINATION AND CONTROL**

If an existing or potential hazard to workers is identified during a hazard assessment, measures must be taken to:

- eliminate the hazard, or
- If elimination is not reasonably practicable, control the hazard

If reasonably practicable, the hazard must be eliminated or controlled through the use of engineering controls.

If a hazard cannot be eliminated or controlled using engineering controls, administrative controls must be used to control the hazard to a level as low as reasonably achievable.

If a hazard cannot be eliminated or controlled using engineering or administrative controls, then appropriate personal protective equipment must be used.

If a hazard cannot be eliminated or controlled using any one of the above controls, then a combination of these should be used if this would provide a greater level of worker safety.

If emergency action is required to control or eliminate a hazard that is dangerous to the safety or health of workers:

- only those workers competent in correcting the condition, and the minimum number necessary to correct the condition, may be exposed to the hazard, and
- every reasonable effort must be made to control the hazard while the condition is being corrected.

The following are some examples of controls.

### **Engineering controls**

- Design of a workplace
- Automation/material handling devices
- Machine guard, interlocks, lockouts, warning devices
- Isolation/enclosure
- Limitation (safety valves)
- Ventilation (general dilution/local exhaust)
- Storage
- Air monitoring devices
- Communication devices

### **Administrative controls**

- Substitution of a less toxic product
- Purchasing criteria (tools, equipment, chairs, etc)
- Policies and procedures
- Training
- Organizing and planning work
- Rotation of workers
- Safety plan/procedure

### **Personal Protective Equipment (PPE)**

- Hard hat
- Goggles
- Hearing
- Safety boots
- T-shirts with 4 inch sleeves
- Respiratory protective equipment
- Fall protection

## **JOB TASKS ANALYZED**

Safe Work Procedures were written up for jobs tasks evaluated as having High or Extreme Hazards associated with them.

The following job tasks for Locksmiths were found to have some high risk hazards associated with it through the Risk Analysis process as mentioned.

**Conducted By:** Dan Sullivan  
Jayne Yates

**Date:** March 2001

### **Glass Removal and Replacement**

- #1 Falling Objects (11)
- #8 Eye Injury (11)
- #10 Lifting (11)
- #15 Cuts (11)

### **Grinder**

- #7 Noise (12)
- #8 Eye Injury (11)

### **Hand Held Power Tools**

- #7 Noise (13)
- #8 Eye Injury (13)
- #13 Rotating Equipment (12)
- #15 Cuts (12)

### **Pneumatic Tools / Compressed Air**

- #4 Dust / Vapours (12)
- #8 Eye Injury (13)

### **Sanders**

- #4 Dust / Vapours (12)



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**HAZARD CONTROL**

## **SAFE WORK PROCEDURES OVERVIEW**

Throughout Physical Plant assessments were conducted on the various existing job tasks and equipment operated to determine the hazards employees may be exposed to. The assessment system used can be found in the previous section of this manual.

Safe Work Procedures were written for specific tasks having high or extreme hazards associated with them. Throughout the Safe Work Procedures, reference is made to various Safe Work Practices as found in Appendix 'A' of these manuals. The Safe Work Procedures vary from the Practices, in that the Procedures are a step by step outline on how to carry out a specific task, whereas the Practices are general safety measures / precautions for tools, equipment, or general work practices which can be applied to a number of Safe Work Procedures.

The Safe Work Procedures were designed to ensure that any information pertaining to the task could be found on the form prior to commencing work. Any hazards associated with the task, along with control measures for these hazards, specific tools or equipment required for the job, as well as references to supplementary material are all listed on the form.

A copy of the Safe Work Procedures Template can be found in this section. This form and the previously mentioned Hazard Analysis System are used whenever new responsibilities or equipment are added to a department.

## ***DOOR INSTALLATION***

### **GENERAL / BRIEF DESCRIPTION OF TASK:**

- Preparation of pre-fabricated doors for replacement of existing ones.

### **FREQUENCY OF TASK PERFORMED:**

- On Demand.

### **HAZARDS IDENTIFIED:**

#1 – Falling Objects  
#8 – Eye Injury  
#10 - Lifting

### **P.P.E. REQUIRED:**

- Safety Glasses
- Hearing Protection

### **SPECIAL TOOLS REQUIRED (if any):**

Drill, Router, Skill Saw  
Planer  
Chisel, Hammer, Screw Drivers  
Door Hardware

### **SAFE WORK PROCEDURE:**

- Visually inspect worksite for any possible hazards.
- Hearing protection may be required depending on the tools used.
- Measure door opening.
- Plane or cut door to fit.
- Using a router cut out area for hinges to fit flush with door.
- Pre-drill holes for screws for the hinges.
- Measure the height of the strike plate on the door jam, and cut out backset in door to fit flush and line up with strike plate.
- Install door hardware – doorknobs, locks, hinges, door closures.
- Hang door on frame. This job requires two people with one person supporting the weight of door and holding in place, while the second one secures the hinges to the frame.
- Once door is hung, issue a work order to the paint shop to apply the finishing coat.
- Refer to Safe Work Practice for “**Use of Power Tools**” as found in Appendix ‘A’.
- Refer to Safe Work Practice for “**Use of Hand-Held Power Circular Saw**” as found in Appendix ‘A’.
- Refer to Safe Work Practice for “**Surface Planer**” as found in Appendix ‘A’.
- Refer to Safe Work Procedure for “**Use of Shaper / Router**” as found in Appendix ‘A’.
- Refer to Safe Work Practice for “**Proper Lifting Techniques**” as found in Appendix ‘A’.

## ***GLASS REMOVAL & REPLACEMENT***

### **GENERAL / BRIEF DESCRIPTION OF TASK:**

- Installation of glass or mirrors, as either a replacement or new.

### **FREQUENCY OF TASK PERFORMED:**

- On demand.

### **HAZARDS IDENTIFIED:**

#1 – Falling Objects  
#8 – Eye Injury  
#10 – Lifting  
#15 - Cuts

### **P.P.E. REQUIRED:**

- Safety Glasses
- Gloves

### **SPECIAL TOOLS REQUIRED (if any):**

Suction cup

### **SAFE WORK PROCEDURE:**

- Inspect immediate area for any existing or potential hazards before starting the job.
- Refer to Safe Work Practices on “**Defective Tools**”, “**Use of Non-Powered Hand Tools**”, “**Use of Power Tools**”, “**Use of Electrical Extension Cords**”, and “**Electrical Safety**”.
- Cover broken glass with cardboard until replacement comes in. If glass is completely broken, remove and replace with plywood.
- Always wear gloves when removing old glass.
- If broken glass is elevated and badly shattered safety glasses should be worn.
- Take proper care when lifting new glass into place. Units that are larger than 3’ x 3’ square, will usually require 2 people to lift.
- Refer to Safe Work Practices on “**Proper Lifting Techniques**” as found in Appendix ‘A’
- Larger units can be better handled and set into place by the use of suction cup and an assistant.
- Windows damaged above walkways will require barricades and warning tape to safely rope off area while work is taking place, to prevent falling objects from injuring passersby.
- Refer to Safe Work Practices on “**Use of Portable Ladders**” and “**Use of Step Ladders**” as found in Appendix ‘A’.

## **GLASS OR MIRROR CUTTING**

### **GENERAL / BRIEF DESCRIPTION OF TASK:**

- Cutting of glass or mirror to fit.

### **FREQUENCY OF TASK PERFORMED:**

- On demand.

### **HAZARDS IDENTIFIED:**

#15 – Cuts

### **P.P.E. REQUIRED:**

- Gloves (optional)
- Safety Glasses

### **SPECIAL TOOLS REQUIRED (if any):**

Glass Cutter  
Straight Edge

### **SAFE WORK PROCEDURE:**

- Visually inspect worksite for any possible hazards.
- Most glass or mirror used on campus, are pre-cut to size. On occasion glass or mirror gets cut in the shop.
- Always wear safety glasses when cutting glass / mirror.
- Caution is to be used when carrying larger pieces of glass / mirror. Gloves may be worn.
- Measure out size to be cut.
- Using a straight edge as a guide score glass / mirror with glass cutter.
- Line up score line on glass / mirror to edge of table or counter and lightly tap glass down onto table or counter to break along line.
- For smaller pieces, tap glass from underside to break along scored line.
- Sand down raw edge using medium-grit sandpaper to prevent splinters or cuts.

# **WINDOW INSTALLATION**

## **GENERAL / BRIEF DESCRIPTION OF TASK:**

- Installing windows in doors – (offices, classrooms, fire doors)

## **FREQUENCY OF TASK PERFORMED:**

- On demand.

## **HAZARDS IDENTIFIED:**

- #1 – Falling Objects
- #7 – Noise
- #8 – Eye Injury
- #10 – Lifting
- #15 – Cuts

## **P.P.E. REQUIRED:**

- Hearing Protection
- Safety Glasses

## **SPECIAL TOOLS REQUIRED (if any):**

- Skill Saw (Hand Held Power Circular Saw)
- Hole Saw (& Power Drill)
- Caulking Gun

## **SAFE WORK PROCEDURE:**

- Visually inspect worksite for any possible hazards.
- Remove door from hinges. Use caution when removing as not to drop it on feet. Obtain help if door is too heavy or awkward.
- If door has an existing window that just needs to be replaced, remove and replace broken glass.
- Use extreme caution when handling broken glass. Gloves may be used.
- Safety Glasses must be worn.
- Insert new piece of tempered glass and secure using caulking or glazing.
- If no window exists and a new one needs to be put in, cut hole in door to size as per work order.
- Hearing protection and safety glasses are required when working with power saws.
- Install tempered glass and secure using caulking or glazing.
- Re-hang door on hinges.
- Refer to Safe Work Practice for “**Use of Power Tools**” as found in Appendix ‘A’.
- Refer to Safe Work Practice for “**Use of Hand Held Power Circular Saw**” as found in Appendix ‘A’.
- Refer to Safe Work Practice for “**Proper Lifting Techniques**” as found in Appendix ‘A’.
- Refer to SOP # **BM1007** as found in this manual.

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**ORIENTATION & TRAINING**

## **Orientation & Training – Building Maintenance**

### **Appearance and Dress**

- While performing outdoor job related duties, University of Lethbridge employees and contractors are to adhere to the protective clothing policy where no muscle shirts, tank tops, or mesh shirts are to be worn. Sleeves must measure a minimum of 4” in length.
- Refer to “Info Sheet” for Sun Protection located in the Safety Manual.

### **Hours of Operation**

- Explain the hours that employees are expected to be at work.
- 2 – 15 minute periods of rest (morning and afternoon) and 1 – 30 minute lunch break.

### **Lateness / Absenteeism**

- High priority is placed on your being at work consistently and on time. However, if for some valid reason you will be late or absent, it is your responsibility to inform your Supervisor.
- Call 329-2602 (Service Centre) at the beginning of your shift.

### **Illness**

- If you are absent from work for more than 3 consecutive days, you will require a doctor’s certificate in order to return.

### **Department Meetings**

- Monthly safety meetings in conjunction with Grounds Department.
- Monday morning Building Maintenance meetings – SB2 08:00.
- Attendance at both is mandatory when scheduled to work.

### **Keys**

- Keys are issued to employees for access of buildings corresponding with their jobs.
- All keys are to be returned upon termination of employment.
- Refer to University of Lethbridge Key Policy

### **Security of Buildings**

- Under no circumstances should an employee unlock a door upon request. Explain that under University policy you are not authorized. Refer the individual to Security.



## Pagers

- To operate paging system:
  - Dial 5198
  - Taped voice will say “enter pager number”
  - Dial appropriate pager number (these numbers are taped beside the phone in the hallway of Service Building #1)
  - When asked to, enter the number from where you are calling. On campus numbers just enter the last 4 digits.
  - If the matter is an emergency enter “911” before entering the number where you are to be called back at.
  - When paging, never make a call from a phone that is on “call forward”

## Campus Tour

- The new employee will be taken on a tour of the campus. Points of general interest will be addressed, making reference to the various buildings on campus.

The following points of specific interest to Building Maintenance will be addressed:

### **Boneyard**

- R-130 Storage

### **Service Buildings**

- Carpenter Shop
- Paint & Sign Shop
- Locksmith Shop
- Stores
- Garage

### **Campus Buildings**

- Storage Areas relevant to the area worker is assigned to.

## Bus Service to the University

- Bus drop off / pick up areas are as follows:
  - UH level 6, North door
  - SU Level 2, South door
  - North entrance to the University Campus (Intersection of University Drive and Valley Road)
  - Along Valley Road.
  - Refer to campus map for locations.

## **Parking**

- Parking is available in the West, Far West, Exploration Place, and Northwest lots upon purchase of a U of L Parking Permit (Plug or Non-Plug). Permanent Full Time and Permanent Part Time Employees are eligible for payroll deduction of parking permits.
- Vehicles must be parked in the applicable areas. The East, North, and South lots are for special permit parking. Applications for parking in these lots can be made at the Security Office.
- Temporary permits are available at Security (LINC), Service Centre (SB #2), and roadside dispensers at each campus entrance.

## **Food Services**

- UH – Cafeteria, Fresh Express
- SUB – Food Court
- LINC – The Station

## **Security**

- Office located in L911. Local: 2603
- Emergency phone 2345
- Lost & Found office located in L911. Local: 2549

## **Introduction to Employees**

- Introduction to co-workers and welcoming to take place during coffee break or lunch time.

## **Time Sheets**

- Time sheets are filled out to track the daily activities of each employee. These are to be completed on-line and submitted at the end of the month. The Superintendent of Buildings will then verify and authorize the entries through the on-line system at the end of each month.

## **Introduction to Safety Manual / Program**

- Location of Manual and how to reference the contents.
- Review of PPE policy, and issuance of PPE.
- Review of Safe Work Procedures / Practices.
- Review Emergency Response Procedures.

## **MSDS Binder**

- Show where to find the MSDS binders located in the assigned areas of work.

## **Work Alone Policy**

- Refer to department Work Alone Policy ensuring that the employee understands the policy and the importance of the compliance.
- Review Building Maintenance check in procedures

**EMPLOYEE ORIENTATION**

This is to recognize that the employee listed below has completed the Orientation Process for Building Maintenance. The employee is aware of Department and University Policies and has been provided with the necessary information to proceed with the Job Training Program.

\_\_\_\_\_  
Supervisor

\_\_\_\_\_  
Date

\_\_\_\_\_  
Employee

\_\_\_\_\_  
Date

# LOCKSMITH – TRAINING MATRIX

Developed by: Dan Sullivan  
Jayne Yates

Date: September 2001

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

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

Orientation Date: \_\_\_\_\_

Task	Training Date	Proficiency Date	Employee	Supervisor
<b>PPE</b>				
Proper Use & Care:				
Safety Glasses				
Hearing Protection				
Safety Boots				
<b>MSDS</b>				
Product Labels				
<b>Safety Manual</b>				
Safe Work Procedures				
<b>Hand Tools</b>				
Identification				
Use / Operation				
Care / Cleanup				
Maintenance				
Sharpening				
General Safety				



Task	Training Date	Proficiency Date	Employee	Supervisor
<b>Hand Held Power Tools</b>				
PPE Required				
General Safe Practices				
<b>Individual Tool Operation</b>				
Select / Change Blades & Bits				
Maintenance				
Cleanup				
<b>Workshop Awareness</b>				
General Housekeeping				
Guards Properly in Place				
Condition of Electrical Cords				
Condition of Blades				
Proper Lubrication of Equipment				
Burning or Hot Smell to Equipment				
Unusual Noise Pitches				
Laboring of Equipment				





Select / Change Disks				
Maintenance				
Cleanup				
<b>Compressed Air System</b>				
PPE Required				
General Safe Practices				
Operation				
Reading of Pressure Gauge				
Valve Control				
Hose Inspection				
Coupler Inspection				
Operation of:				
Air Sander				
Air Nailer				
Air Stapler				
Air Wrench				
Maintenance				
Cleanup				
<b>Blue Prints</b>				
Read / Interpretation				

<b>Task</b>	<b>Training Date</b>	<b>Proficiency Date</b>	<b>Employee</b>	<b>Supervisor</b>
<b>Key Cutting</b>				
PPE Required				
General Safe Practices				
Operation				
Change Cutter Wheel				
Calibration				
Maintenance				
Cleanup				
<b>Door Hardware</b>				
Installation				
Maintenance				
Troubleshooting				
Cleaning				
Re-pinning Cylinders				
<b>Repair Roll Shutters</b>				
<b>Repair Room Dividers</b>				
<b>Overhead Door Maintenance</b>				
<b>Glass Removal / Installation</b>				
<b>Automatic &amp; Handicap Doors</b>				
Maintenance / Troubleshoot				

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**FORMAL INSPECTIONS**

## **INFORMAL INSPECTIONS**

Currently within the Physical Plant Departments an effective ongoing informal inspection program is carried out on a daily basis by all employees.

All Physical Plant employees are responsible for reporting any visible deficiencies that they come across while performing their regular assigned duties.

Deficiencies that are the responsibility of Building Maintenance, Caretaking, & Grounds are reported to the Administrative Support in the Physical Plant Service Centre located in Service Building #2. Deficiencies that are the responsibility of Plant Utilities are reported to the Administrative Support in Plant Utilities located in University Hall. Once a deficiency is reported, a work order is then generated and assigned to the appropriate group for correction.

A work order request form is accessible on the Physical Plant Operations & Planning website under the Administration directory of the University of Lethbridge home page. This form allows all members of the University of Lethbridge to report deficiencies in their respective areas. Once the form is filled out and submitted, it can be retrieved through the request browser of the Computer Management Maintenance System. A work order is generated from the request and assigned to the appropriate department for attention.

All work orders are tracked in a data base system, which is accessible to all Physical Plant employees. When an employee has corrected the deficiency, the work order is then returned to the support staff in their respective areas to be closed out. The technician's comments are added to the work order in the system to track the history of that area / item.

## ***FORMAL INSPECTIONS***

Within Physical Plant, the employees in each of the departments carry out an effective formal inspection program on a monthly basis. This system is in the form of a preventative maintenance program.

Each month a series of Preventative Maintenance (PM) work orders are issued for various equipment, systems and areas of the University.

If any deficiencies are found in the areas examined, the respective administrative staff is notified and a work order is then generated for the appropriate employee / department to correct. This is designated as a PMR (Preventative Maintenance Repair). Any deficiencies found that require immediate corrective action due to imminent danger to employees / public are corrected at the time of inspection and the information pertaining to the work is recorded on the form.

# OUT-OF-SERVICE REQUEST

ITEM DESCRIPTION: \_\_\_\_\_ SERIAL #: \_\_\_\_\_

LOCATION: \_\_\_\_\_

EMPLOYEE: \_\_\_\_\_ DEPARTMENT: \_\_\_\_\_

EXISTING PROBLEM(S): \_\_\_\_\_

SIGNATURE: \_\_\_\_\_ DATE SUBMITTED: \_\_\_\_\_

SUBMITTED TO: \_\_\_\_\_ DEPARTMENT: \_\_\_\_\_

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INSPECTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

IMMEDIATE ACTION: \_\_\_\_\_ Lockout / Tagout \_\_\_\_\_ Remove

CORRECTIVE ACTION: \_\_\_\_\_ Repair \_\_\_\_\_ Replace

WO ISSUED: \_\_\_\_\_ Yes \_\_\_\_\_ No WO #: \_\_\_\_\_

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REPAIRED BY: \_\_\_\_\_ DEPARTMENT: \_\_\_\_\_

DATE: \_\_\_\_\_

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

BACK IN SERVICE DATE: \_\_\_\_\_

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**EMERGENCY RESPONSE PLANNING**



# Interoffice Memorandum

**Date:** August 29, 2001

**To:** APO Managers

**From:** B. Sullivan

**Re:** Procedures for After Hour Occurrences

From time to time a situation may arise that requires the notification and/or call out of management and/or staff of the Physical Plant Department.

Generally, the protocol for a routine after-hours incident would be for Security to call the manager of the affected department(s). From time to time however, there may be situations, which require notification of other senior Physical Plant staff or senior university administration.

Security Services usually receives the initial information concerning an incident. Routine incidents will be communicated via the immediate supervisor and up through the normal channels.

Significant incidents however, must be communicated to the Office of the President/Vice Presidents via telephone or personal contact. The actual notification will be done by Superintendent of Security Services, Executive Director of Physical Plant, or the Associate Director of Physical Plant, or in their absence, a senior Physical Plant manager. When determining whether or not the incident is "significant", the guiding principle is: **it is better to inform than not to inform.**

It is important that the senior administration of the University are apprised of major incidents. Significant incidents are those which:

- Seriously affect the safety of persons on campus
- Affect the integrity and reputation of the University
- Have the potential to attract the attention of the media

All media contact concerning any incident will be via the Communications Office, unless otherwise directed by the President or his designate.

The attached document outlines the process for notification in the event that the Superintendent of Security, Associate Director and Director of Physical Plant are not available.

Physical Plant managers have the discretion to call upon other department staff to deal with emergencies if they are unable to get a hold of the manager involved or the Executive Director or Associate Director of Physical Plant.



The attached back up document also provides phone numbers of senior department staff that can be called upon in an emergency basis, to deal with situations that affect health and safety of campus users.

Brian Sullivan  
Brian Sullivan  
Associate Director  
Physical Plant & Operations

BS:sh

Attachment: Emergency Response Callout List  
Emergency Contact Numbers

cc. **D. Parker**  
**N. Walker**

## ***SPILL RESPONSE***

**Developed by:** Bill Hudgins – Caretaking  
Bill Platt – Grounds  
John Federkeil – Utilities  
Jayne Yates – Physical Plant

**Date:** September 2001

Throughout Physical Plant various chemicals are used for cleaning, and operational purposes, and the types of chemicals used vary from department to department.

Each department within Physical Plant is responsible for ensuring that the MSDS Sheets provided by the supplier for all of the chemicals used within their own department, are readily available to all of their employees. All employees must have WHMIS training.

### ***Spills Within Physical Plant***

#### ***Known Substance***

- If the substance spilled is known, immediately obtain the MSDS.
- If the known substance is deemed to be **Non-Hazardous**, and conditions surrounding the spill do not pose any danger, follow the cleanup and disposal procedures as outlined on the MSDS.
- If the known substance is deemed to be **Hazardous**, or conditions surrounding the spill are hazardous (ie. can it become airborne; is there a source of spark nearby etc.) **immediately contact Security at local 2345.**
- The following information must be relayed to Security:
  - Your name.
  - There is a spill.
  - Location of the spill.
  - Location of spill kit.
  - Wait outside the location until Security arrives and do not let anyone else enter the area.

### **Unknown Substance**

- If a spill found is of an unknown substance **immediately contact Security at local 2345.**
- The following information must be relayed to Security:
  - Your name.
  - There is a spill.
  - Location of the spill.
  - Location of spill kit.
  - Wait outside the location until Security arrives and do not let anyone else enter the area.

### **Identifiable Area**

- If a spill is found in an identifiable area (ie. Janitor Room, Grounds Shed) immediately contact the head of that department to attend the location of the spill. The department representative is then responsible for determining if the substance is known or unknown and to follow the necessary procedures.

### **Spill Kits**

- It is the responsibility of each employee to know the location of the spill kits in their areas (if applicable).

### **Chemical Spills Report**

- The employee finding the spill must complete the online Accident / Incident form located on the O.H.& S. website under Administration on the U of L home page.
- Once O.H.& S. receives the completed form and / or a phone call, if deemed necessary by O.H.& S., an investigation will commence.

## **SPILL RESPONSE For Bio-Hazards**

### **Blood borne Pathogens And Other Potentially Hazardous Human Materials**

**Definitions:**

- BLOODBORNE PATHOGENS – pathogenic microorganisms that are present in human blood and cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV). Other examples include microorganisms that cause hepatitis C, i.e. Malaria.
- Other potentially Hazardous Human Materials – Human body fluids such as urine, vomit, saliva, semen and vaginal secretions.

**HEPATITIS “B” VACCINATION IS MANDATORY FOR ALL CARETAKING, SECURITY AND UTILITIES STAFF EMPLOYED BY THE UNIVERSITY OF LETHBRIDGE.  
(NOTE: Building Maintenance and Grounds Staff do not require Hepatitis “B” vaccinations)**

Part of the job requirements of a Caretaker employed by the University when needed is to clean-up a blood spill or other human materials these are unknown hazards and must be treated as such. Grounds, Building Maintenance and Utilities staff and Security Officers may come in contact with these unknown hazards and must treat them as such.

**Rules to follow:**

- Always wear personal protective equipment in exposure situations.
- Remove PPE that is torn or punctured, or has lost its ability to function as a barrier to blood borne pathogens.
- Replace PPE that is torn or punctured.
- Remove PPE before leaving the work area.

**Inspection of the job area is required prior to the commencement of the work to be executed.**

- Check the area for blood borne pathogens and other potentially hazardous materials
- If this is the case, notify work control during normal work hours to arrange for Caretaking to clean up. Grounds staff will cleanup any Hazardous Materials found on campus outside of buildings.
- If cleanup is required outside normal work hours, contact your supervisor for guiding and assessment of the situation.
- Before you start the job, ensure you wear you PPE ie. Gloves, goggles, aprons and face masks should be worn when cleaning the sewage lift stations on campus with fall restraint when working over open pit areas.

### ***Clean-up Procedures for Blood borne Pathogens and Other Potentially Hazardous Human Materials:***

- Inspect the area prior to commencement of clean-up.
- Ensure you wear P.P.E. 1- Gloves (disposable latex or vinyl)
  - 2- Goggles
  - 3- Apron (Optional)
- Ensure you have appropriate cleaning materials on hand.
  - 1-Disinfectant solution (Bleach 1 in 10 dilution)
  - 2-Absorbent cloths i.e. paper towel or disposable cloths
  - 3-Garbage bags.
- Carefully apply bleach solution around the edges of the spill working to the center Allow a twenty-minute contact time. Using paper towels or absorbent cloths, wipe-up spill working from the edges of the spill to the center.
- Clean the spill area again with fresh bleach solution place all materials used in double garbage bags for disposal, including disposable gloves used in the clean up.
- Immediately after spill is cleaned up you must wash your hands.
- Disposal of materials used will be at the direction of your foremen or manager.

### ***OTHER POTENTIAL BIO-HAZARD MATERIALS***

#### **SHARPS**

Far too frequently Physical Plant workers are punctured or cut by improperly disposed of needles and broken glass. This, of course, exposes them to whatever infectious material may have been on the glass or needle. For this reason, it is especially important to handle and dispose of all sharps carefully in order to protect yourself as well as others.

#### **Rules to follow:**

- Look before you reach to empty garbage containers or where your vision maybe impaired i.e. under furniture or behind fixtures.
- Ensure you wear PPE (vinyl gloves).
- Check your gloves for punctures or tears. Replace if damaged.
- Remove PPE before leaving the work area.

#### **Clean-up Procedures for SHARPS:**

- If you suspect an object to be bio-hazardous (needles etc.) contact your immediate supervisor before attempting to pick it up.
- Ensure you wear PPE 1- Gloves (disposable vinyl)
  - 2- Goggles
- Inspect the container you are emptying (do not reach inside container).
- Before picking up any object ensure you are able to identify it is not a hazard.
- Ensure you have appropriate disposal container on hand for (sharps) objects. i.e. needles. (Your supervisor will supply appropriate disposal container.)

#### **PROCEDURE FOR CUTS OR STAB WOUNDS FROM NEEDLES**

- Report the incident to your supervisor immediately.
- Save the needle to give to medical personnel.
- You must go to your doctor or emergency for treatment.
- You will be required to fill out an accident incident report form.

-

**YOU MUST KNOW AND UNDERSTAND THE FOLLOWING**

- Ensure you know Safe Work Procedure for clean up of Blood borne Pathogens or other potentially Hazardous Human Materials.
- All Appropriate PPE must be worn.
- Remember to use universal precautions and treat all blood or potentially infectious body fluids as if they were contaminated. Avoid contact whenever possible, and whenever it's not wear personal protective equipment.

## **IN CASE OF FIRE – R.E.A.C.T.**

**REMOVE THOSE IN IMMEDIATE DANGER**

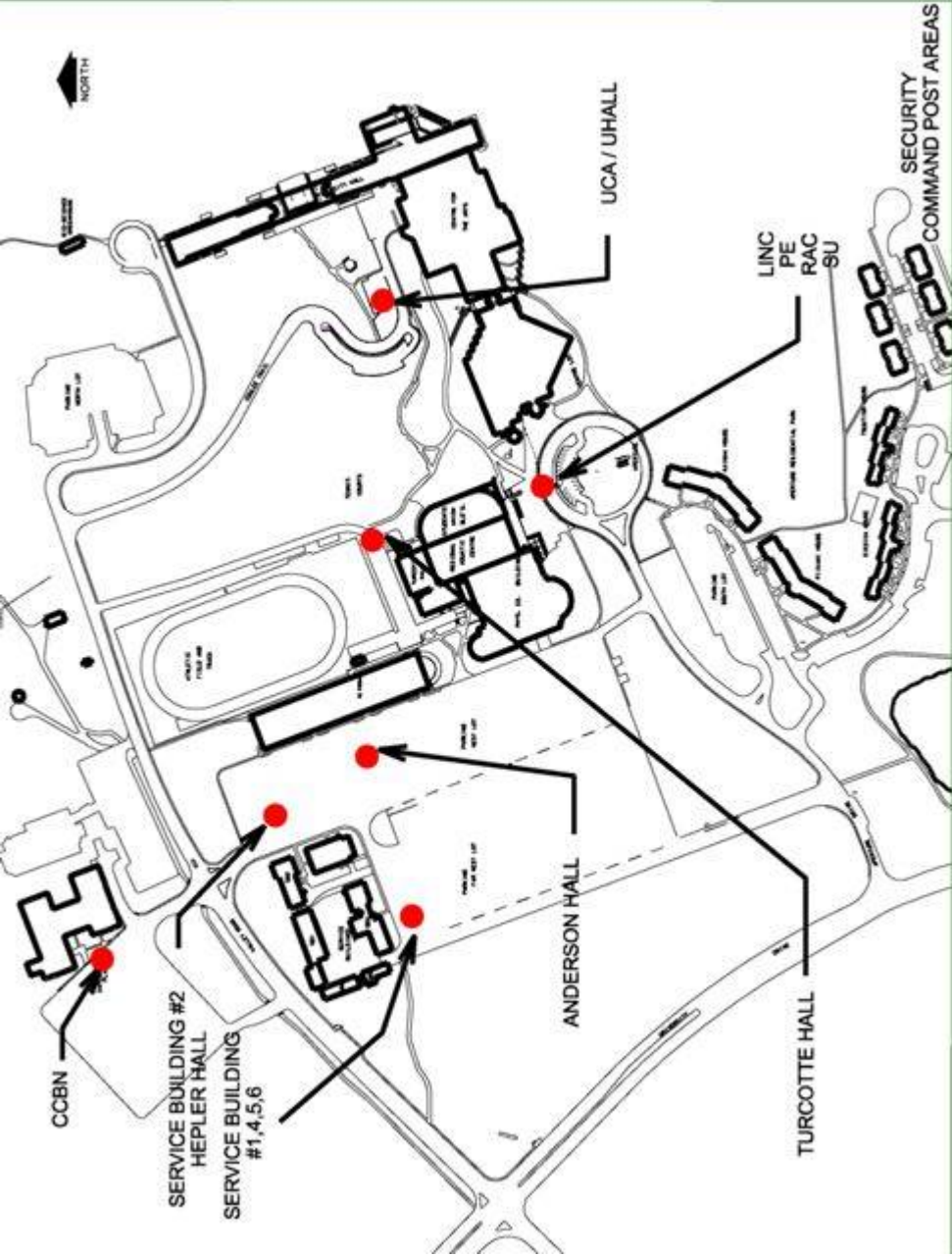
**ENSURE DOORS ARE CLOSED  
(PARTICULARLY THOSE IN THE IMMEDIATE FIRE AREA)**

**ACTIVATE THE FIRE ALARM SYSTEM**

**CALL THE FIRE DEPARTMENT 9-1-1**

**TRY TO EXTINGUISH (IF SMALL)**

**Security – Command Post Areas**





## ***FIRE PREVENTION DUTIES OF FIRE WARDENS***

FIRE WARDENS WILL CHECK THEIR AREA(S) FOR:

- a) Accumulation of combustible material, rubbish, or flammable liquids in excess of quantities allowed.
- b) Dangerous ignition sources, i.e. worn extension cords, oily rags, overheating equipment.
- c) Exit lights in good working order and adequate lighting in public corridors and stairwells.
- d) Fire and exit doors and their self closing hardware in good operating condition (Doors should not be wedged open under any circumstances).
- e) Exit routes unobstructed.
- f) Fire hose and portable extinguishers not obstructed, in good working order and ready to use.

**ALL FIRE HAZARDS THAT ARE DISCOVERED MUST BE REPORTED TO THE BUILDING FIRE WARDEN OR DELEGATE IMMEDIATELY.**

# DUTIES OF A FIRE WARDEN & ASSISTANT FIRE WARDEN DURING AN EMERGENCY EVACUATION

## UNIVERSITY HALL

1. In the event of a fire, your primary duty is to evacuate your designated area(s) outlined in this manual.
2. In the event of a fire or explosion, immediately activate the nearest pull station and call 911.
3. At the sound of a fire alarm:
  - Put on your fire warden apron
  - Knock, check and evacuate each room in your area(s)
  - Once evacuated, close all doors
  - Evacuate hallways in your area(s)
4. Be aware of those people that are evacuating within your designated area(s), particularly those that may have vision or hearing disabilities as these impairments are not always obvious. For those with mobility problems, appoint others who are evacuating your area(s) to assist you to ensure that these people or any disabled person is moved to the nearest floor that will provide an exit out of the building and that these people are moved away from the building, providing there is no immediate or apparent danger. **DO NOT USE THE ELEVATOR. USE STAIRWELLS TO HOUSE EVACUEES ONLY IF ABSOLUTELY NECESSARY.** If required, handicap persons with mobility problems should wait adjacent to the stairwell until the main flow of people has passed and then they can be positioned in the stairwell. Try to have someone stay with these people until help arrives.
5. Designate a person to guard exterior exits to prevent unauthorized re-entry. Your assigned exits if applicable are outlined in this manual and marked with a red **“X”**.
6. Exit the building and report to the security command vehicle located in the East lot. Report the disposition of any handicap or injured people to the Security Officer in the vehicle at this time.
7. Follow instructions from the building fire warden or their delegate and the Lethbridge Fire Department.
8. If transportation of evacuated people is necessary, contact Security at 329-2345.

UNIVERSITY OF LETHBRIDGE  
PHYSICAL PLANT AND OPERATIONS

HEALTH & SAFETY PROGRAM

**INCIDENT INVESTIGATION**

## **ACCIDENT / INCIDENT INVESTIGATION OVERVIEW**

When an accident / incident occurs on the worksite, the Employee is responsible for reporting it immediately to their Supervisor. It is then the responsibility of the Supervisor to conduct an investigation with the help of the Employee.

The purpose of incident investigation is to determine direct and underlying causes, and implement immediate and long-term corrections in order to prevent re-occurrence.

There are four (4) essential steps in conducting an investigation. An overview of each of the four phases is presented here;

1. **Gather Facts** - Investigation techniques and methods are designed to discover facts. A fact is something that actually exists or has actually occurred; something known by observation or examination to be true or real. This is done mainly, by examining the scene and talking to people.
2. **Analyze and Evaluate the Facts** - This is a systematic and thorough study of the facts to determine causes and recommend corrective measures. (This is the step where we spend much of our time - applying the Incident Analysis Worksheet.)
3. **Document Findings** - A written report is necessary to communicate the findings of the investigation to management and affected employees and to ensure proper follow-up takes place.
4. **Follow-up** - This step is essential to ensure that the recommended corrective actions to prevent recurrence are actually implemented, and are working effectively.

These phases generally do not occur separately, or in a linear fashion. Rather the phases sometimes overlap: analysis and evaluation begins while the facts are being gathered (e.g. while getting an overview of the incident), and evaluation of the facts may well send you back to gather more information. The investigator must be careful not to let early analysis lead to premature conclusions.

Once an investigation is complete, the results and corrective recommendations must be shared with all Employees within that department. The report is to be signed off by the Director of Physical Plant and returned to the department Supervisor. Copies of all reports are kept on file within the department for 3 years.

In cases where the result is a loss time claim, the Supervisor is then responsible for sending a copy of the investigation to the OH & S Department on campus for review.

It should be noted that this investigation and report **does not replace** any required WCB or on-line reporting forms that are to be completed by the Employee and Supervisor, nor does it replace any investigations that need to be conducted by the OH & S department on campus. This is for the department's own investigation and follow-up procedures.

## **PROCEDURES FOR RESPONDING TO AND REPORTING OF:**

- I. Injuries
- II. Property Damage / Theft
- III. Environmental Issues
- IV. Automobile Accidents

### **I. INJURIES**

#### **Response To An Injury On-site U of L Campus:**

- Call Security at **329-2345**

#### **Transportation of Injured Persons Policy:**

- Employees **cannot**, at any time, for any reason, drive an injured co-worker, visitor or student, to a clinic and / or hospital.

#### **Response To An Injury Off-site U of L Campus:**

##### Calgary or Edmonton Campus:

- Call SAIT Security on Calgary Campus.
- In Edmonton, call Building Security
- Call ambulance, if necessary
- Follow U of L “Transportation of Injured Persons” policy

##### Anywhere else on U of L business

- Follow response procedures at location
- Familiarize yourself with the accident / incident response policies & procedures of that specific organization before working at any off campus location.

#### **Reporting an Injury On-site U of L Campus:**

- Security will investigate and formally document the accident / incident and will inform Occupational Health & Safety and Insurance & Risk Management on campus.
- Reporting of accident / incident must be done within 24 hours if the injury occurs to faculty or staff during work, or to a student during the course of study.
- The casualty and / or observers must also document the event using the Campus Accident / Incident Report. This form can be found on the OH&S website under “**Administration**” on the U of L Home Page.
- Send the completed Accident / Incident Report form to Occupational Health & Safety in Anderson Hall.

### **INJURIES (cont.)**

#### **Reporting an Injury Off-site U of L Campus:**

- Fax the completed Accident / Incident Report form to Occupational Health & Safety **and** Insurance & Risk Management at (403) 380-1872.

- Or call: Occupational Health & Safety at (403) 329-2099: Insurance & Risk Management at (403) 382-7132.

## II. DAMAGE / THEFT OF U OF L PROPERTY

### Response to Damage / Theft of U of L Property On-site U of L Campus

- Call Security at **329-2345**

### Response To Damage / Theft of U of L Property Off-site U of L Campus:

#### Calgary or Edmonton Campus:

- Call SAIT Security on Calgary Campus.
- In Edmonton, call Building Security

#### Anywhere else on U of L business

- Follow response procedures at location
- Familiarize yourself with the accident / incident response policies & procedures of that specific organization before working at any off campus location.

### Reporting of Damage / Theft to U of L Property On-site U of L Campus

- Security will investigate and formally document the accident / incident and will inform Insurance & Risk Management.
- No other formal report required at this time.
- In the event of U of L property loss, Insurance & Risk Management will contact the relevant person / department to process a property insurance claim, if applicable.

### Reporting of Damage / Theft to U of L Property Off-site U of L Campus

- Campus Accident / Incident report, found on the OH&S website under “**Administration**” on the U of L home page, must be completed as soon as you return to campus or within 48 hours.
- Fax the completed form to Insurance & Risk Management at 380-1872.

### **III. ENVIRONMENTAL INCIDENT**

Defined by:

- Chemical spills, odors
- Water (or something) leaking
- Slippery surfaces such as pathways, parking lots, stair
- Lack of airflow in offices (i.e. Evenings, weekends)

#### **Response to Environmental Incident On-site U of L Campus**

- Call Security at **329-2345**

#### **Response to Environmental Incident Off-site U of L Campus**

- Notify responsible persons, as appropriate.

#### **Reporting of Environmental Incident**

- Person finding the spill is to formally document the incident using the Accident / Incident Form on the U of L website.
- Once report is submitted, Occupational Health & Safety will review and determine if a formal investigation is required.



#### **IV. AUTOMOBILE ACCIDENT**

##### **Response to Automobile Accident On-site U of L Campus**

- Call Security at **329-2345**

##### **Reporting of Automobile Accident On-site U of L Campus**

- Security will investigate and formally document the accident / incident and will inform Insurance & Risk Management.

##### **Reporting of Automobile Accident On-site U of L Campus**

- Fax a completed Accident / Incident report form to Insurance & Risk Management (403) 380-1872 or phone (403) 382-7132.

##### **Reporting of Automobile Accident On-site and Off-site U of L Campus**

###### Personal Vehicle – U of L Business

- If the accident occurs in your personal vehicle, call your personal insurance company immediately.
- Call Insurance & Risk Management as soon as possible. Depending upon the severity and the circumstances, the U of L's non-owned auto insurer may respond in excess of personal coverage.

###### Rental Vehicle – U of L Business

- Call the auto rental agency immediately.
- Call Insurance & Risk Management as soon as possible. The U of L's non-owned auto insurer must be notified in case required to respond in excess to rental agency insurance.
- Call AMEX if vehicle was rented using Corporate Card (may provide collision coverage).

**If an injury occurs as a result of the Automobile Accident follow Injury Reporting Procedures as outlined in this document.**

**INCIDENT ANALYSIS WORK SHEET**

**Injury/Loss:**

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**Incident:**

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**Immediate Causes:**

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**Underlying Causes:**

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**Corrective Action (Controls/Management System):**

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**INCIDENT INVESTIGATION REPORT**

Date of Incident: \_\_\_\_\_ Time: \_\_\_\_\_

Location: \_\_\_\_\_ Name of Person in Charge: \_\_\_\_\_

Name of Investigator(s): \_\_\_\_\_

***Injuries - Persons Injured***

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

Address: \_\_\_\_\_

Description of Injury:

\_\_\_\_\_

First aid given?            Yes    No            By whom? \_\_\_\_\_

Transported to medical aid?    Yes    No    By whom? \_\_\_\_\_

Where to? \_\_\_\_\_ Name of Doctor: \_\_\_\_\_

When was the accident reported to Occupational Health & Safety?

Date: \_\_\_\_\_ Time: \_\_\_\_\_

By Whom?: \_\_\_\_\_

***Property Damage***

Damage to property:    Yes    No    Estimated Value: \$ \_\_\_\_\_

Damage to equipment:    Yes    No    Estimated Value: \$ \_\_\_\_\_

Description:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Party(s) Responsible for cost of replacement / repair:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Person(s) involved/Witnesses**

Name	Address	Phone

Incident Reported by: \_\_\_\_\_ Reported to: \_\_\_\_\_

Date Reported: \_\_\_\_\_ Time Reported: \_\_\_\_\_

Conditions at time of incident (weather, status of job, housekeeping, etc.)

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Description of incident (What was the job being done? What equipment, tools, materials, etc. were involved? What happened?) - Attach a diagram if necessary.

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**What were the causes of the incident?**

Immediate? (Unsafe Practices/Conditions)

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Underlying? (Personal/Work Environment Factors)

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**Recommended action(s) to prevent recurrence?**

Short-term?

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Long-term?

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**Persons) responsible for implementing corrective actions)? Completion date?**

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## **LOCATION OF FIRST AID KITS**

1. **AH** AH1J2
2. **CCBN** EP12J1
3. **HH** HH1J01
4. **LINC** L814  
L9J1  
L10J1  
L11J1
5. **PE** PE1J2  
PE2J7
6. **SB #1** S11H5
7. **SB #2** S136
8. **SB #4** S17J4
9. **SUB** SU062  
SU1M2  
SU2M1  
SU3J1
10. **TH** TH1J1  
TH2J1  
TH3E1
11. **UCA** W4J15  
W5J15  
W6J15  
W7J15  
W8J15
12. **UH** B424  
C5J1  
D6J1  
C7J1  
C8J1

UNIVERSITY OF LETHBRIDGE  
PHYSICAL PLANT AND OPERATIONS

HEALTH & SAFETY PROGRAM

**POLICIES & GUIDELINES**

# **UNIVERSITY SERVICE VEHICLES**

## **General Vehicle Safety Policies**

All employees operating University of Lethbridge owned vehicles must possess a current Alberta Driver's License with the appropriate class designation to the Vehicles / Equipment he or she will be operating. A Driver's Abstract may be requested prior to commencement of employment, as decided on an individual basis.

The following is a list of University Vehicle Safety Policies:

- Smoking in University Vehicles is prohibited.
- Under no circumstances are passengers allowed to ride in the back of University Pickup Trucks.
- The maximum allowable number of passengers for any vehicle is equal to the number of seatbelts available.
- Passengers must at all times wear seatbelts when riding in University Vehicles.

## **Routine Services**

University Vehicles are routinely serviced by the Mechanic in the Motor Vehicles Pool every 6 months or 5000 kms (whichever occurs more frequently) over and above the demand maintenance / repairs required.

## **Maintenance & Repairs**

Each department is responsible for ensuring that the vehicles assigned to them are kept in proper operating condition. Any deficiencies should be reported to Work Control so that a work order can be issued to the Motor Vehicles Pool so that the repairs necessary can be carried out.

## **General Care**

Each department is responsible for ensuring that the vehicles assigned to them are routinely cleaned inside and out. Employees within Physical Plant have access to the Power Washer located in the garage of Service Building #1. Operating instructions are posted on the wall by the Power Washer, as well, a copy of these instructions can be found in the Safe Work Practices section (Appendix 'A') of each safety manual. It is up to each department to ensure that all employees read and understand these instructions prior to operating washer.

## **Cell Phones**

Employees are not permitted to talk on cellular phones or other communication devices while operating any University Vehicles or Machinery. The unit must be pulled over to a safe location and stopped before making or receiving a call.



## First Aid Kits

First Aid kits are supplied for each vehicle. It is the responsibility of each department to ensure that these kits are checked on a regular basis and supplies are replenished as required.

## Fire Extinguishers

The Security Van is supplied with a 5 lb. dry chemical ABC unit and a 5 lb. CO<sub>2</sub> unit. All other vehicles are equipped with a 2 ½ lb. (minimum) dry chemical ABC fire extinguisher.

The extinguishers in the Security van are checked on a monthly basis by Security. The remainder of the extinguishers, are checked once a year by Security.

## Re-fueling of Vehicles

When vehicles are re-fueled, the date, vehicle number, mileage, amount of fuel dispensed, and name of employee must be recorded on the log sheet provided.

Avoid hauling fuel containers (ie. Jerrycans) in the back of pickups with plastic liners as sparks may be generated due to static electricity, causing ignition. Fuel containers transported in the back of pickups without liners must be secured during transport.

The use of **cellular telephones** is prohibited at or near the fuel pumps, as static charges from cell phones have been proven to ignite gasoline fumes. Ensure all cell phones are turned off while at the fuel pumps.

*Occupational Health & Safety Statues and Regulations* lists the following provisions on re-fueling of vehicles:

*An employer shall ensure that a worker does not, and no worker shall*

- *Smoke within 3 meters of a vehicle while it is being re-fueled*
- *Re-fuel a vehicle where there is any source of ignition within 3 meters of that vehicle.*

## Storage of Vehicles

- At the end of each workday the University Vehicles are to be parked in the compound between SB #1 and SB # 4.
- All keys are to be locked up in the designated lock box at the end of each day.
- Employees are not authorized to take University Vehicles home at the end of his or her shift.

## **WORK ALONE POLICY – PHYSICAL PLANT**

Under the guidelines of the work alone legislation, businesses that require employees to carry out work alone must conduct a hazard assessment of their worksite, to identify work alone situations.

Once situations are identified, preventative measures need to be taken to eliminate or reduce safety risks associated with working alone. An effective means of communication must be provided where possible to ensure employees can readily obtain help where necessary.

Each department within Physical Plant, conducted a hazard analysis for their area using the guidelines found in the booklet “Working Alone Safely: A Guide for Employers and Employees” as developed by Alberta Human Resources and Employment.

Once the assessments were complete, specific department policies were put into place to ensure risks were minimized for employees. These policies include one or a combination of the following:

- An effective means of communication by: Regular telephone, Cellular telephone, Portable Radios.
- Check in procedures when travelling away from U of L campus or to remote locations on campus.
- Regular visits by supervisors and checking in with fellow workers.
- Check in with Campus Security when working outside of regular scheduled shifts.

Department policies have been effectively communicated to all employees in regards to their responsibilities when working alone, and have been incorporated into the orientation procedures for all new employees within the various Physical Plant Departments.

## KEY RINGS & CELL PHONES

1. Employees are to carry keys only during regular hours of work, 8:00 am to 4:00 pm Monday through Friday, unless other arrangements have been made with supervisors.
2. All full-time employees carry department assigned cell phones. Each employee is responsible for the security of their own phone.
3. Casual employees carry pagers linked to the University paging system, that get locked up with their key rings at the end of the work day.
4. Keys are stored in a secure key lock-up in the hallway SC13H1 outside of the Building Maintenance Shops in the new Services Complex. This key lock-up monitors the removal and replacement of the keys.
5. All key rings are to be returned to the lock-up at the end of each day.
6. Any additional keys needed on a per job basis are to be obtained through the Physical Plant Service Centre.
7. Prior arrangements with the Building Maintenance Superintendent or Operations Supervisor will have to be made for accessing / returning keys and phones for work duties scheduled or performed at hours outside of the regular work day. Ie. Convocation, Orientation, Overtime etc.
8. Campus emergencies access provided by either the Building Maintenance Superintendent or Operations Supervisor or Security upon authorization from the above.

UNIVERSITY OF LETHBRIDGE  
PHYSICAL PLANT AND OPERATIONS

HEALTH & SAFETY PROGRAM

**PROGRAM ADMINISTRATION**

## **PROGRAM ADMINISTRATION OVERVIEW**

### **MONTHLY SAFETY MEETINGS**

The departments of Building Maintenance, Grounds Maintenance, and Caretaking Services conduct joint monthly safety meetings. These meetings take place the first Friday of the month, with the host of the meeting rotating amongst the three departments.

The department hosting the meeting chooses the topic, conducts the presentation and records the minutes of the meeting. Each employee that attends signs the attendance sheet. A copy of the attendance sheet can be found in this section.

The meeting format ranges from presentation videos, to an overview of safe work practices in relation to current issues or seasonal work being carried out or coming up within the departments.

The minutes from the safety meetings must be forwarded to the Executive Director of Physical Plant to review. The Executive Director must sign the minutes and return to the appropriate department. The Executive Director of Physical Plant must also attend a safety meeting for each of the departments on a yearly basis, recognizing the safety achievements of the employees.

### **WEEKLY DEPARTMENT MEETINGS**

Each Monday morning all of the divisions in Building Maintenance meet to discuss the past week's work and any new work coming up. Any safety issues or incidents are discussed at this time.

### **INCIDENT TRENDS**

Each time an employee is involved in an accident / incident, a form must be completed and sent to the coordinator of OH&S, as outlined in the Accident / Incident section of this manual. A copy of the report must go in the employee's personal file for record purposes and retained for three years.

An Incident Trend spreadsheet has been developed to track the amount of incidents each individual employee has had over the past year as well as the number of each type of incident occurring within the department. This information is used to determine where more training is required on an individual basis, as well as for the entire group, in order to provide a safer workplace for all.

When a new incident occurs, the type of incident is recorded along the top of the spreadsheet and the date of the incident is recorded in the corresponding space for the Employee. A sample of the Trend spreadsheet can be found in this section. ***The results of these accidents / incidents are not accounted for on the Trends or Lost Time Days Spreadsheets or in the Lost Time Claims calculation as outlined in this section***

### **LOST TIME DAYS**

For the accidents / incidents resulting in lost time, the number of days is recorded on the Lost Time Days (LTD) Spreadsheet in the corresponding month for the employee. A ***Lost Time Day*** is defined as any regular scheduled work day that is missed due to an accident / incident occurring on the job.

## **LOST TIME CLAIMS RATIO**

At the end of each year the Lost Time Claims (LTC) ratio is calculated based on the number of Lost Time Days in comparison to the amount of manhours recorded for that employment year. When calculating the LTC ratio, all employee's manhours are accounted for ie. Full-Time, Part-Time, Temporary, and Casual employees. Any absence from work that is not a result of an accident / incident is not accounted for in the manhours or Lost Time Day values ie. vacation days, sick days, days missed as a result of an injury outside of regular scheduled work.

## **EMPLOYEE EVALUATIONS**

Once a year, Employees are evaluated on their job performance. Included in this evaluation Employee safety comprehension and compliance is addressed. The results recorded on the Trends Spreadsheet, is taken into consideration for the evaluation on safety issues.

The evaluation is reviewed with the Employee so they are fully aware of the results. Any feedback, concerns, or suggestions that the Employee may have is discussed at this time. A copy of the evaluation is sent to Human Resources to be placed on the Employee's file, and the Supervisor keeps a copy on file in the department. Employees are also given a copy.

## **DISCIPLINARY PROCESS FOR VIOLATION OF SAFETY POLICIES & PRACTICES**

In the event that a Union Employee's actions are found to be in violation of the safety policies and practices outlined in the Health and Safety Program, the disciplinary process will follow the process outlined in the AUPE Agreement as stated under Article 13 – *Personal Files and Discipline*.

In the event that an APO's actions are found to be in violation of the safety policies and practices outlined in the Health and Safety Program, the disciplinary process will follow the process outlined in the APO Agreement as stated under Section 10 – *Progressive Performance Improvement*.

## **LOST TIME CLAIMS – (LTC)**

Lost time claims are a measurement of the number of lost time days in comparison with the amount of manhours logged over the claims year.

$$\text{LTC} = \frac{\# \text{LTC}(\text{days}) \times 200,000}{[\# \text{ Hours Worked / year}]}$$

ie.

17 lost time days  
1,000,000 manhours / year

$$\frac{17 \times 200,000}{1,000,000} = 3.4 / 100 \text{ person years}$$









UNIVERSITY OF LETHBRIDGE  
PHYSICAL PLANT AND OPERATIONS

HEALTH & SAFETY PROGRAM

**SAFE WORK PRACTICES**

## **USE OF CLEANING SOLVENTS AND FLAMMABLES**

Cleaning solvents are used in the day-to-day construction work to clean tools and equipment. Special care must be taken to protect the worker from hazards, which may be created from the use of these liquids. Wherever possible, solvents should be nonflammable and nontoxic.

The foreman must be aware of all solvents / flammables that are used on the job, and be sure that all workers who use these materials have been instructed in their proper use, and any hazard they pose.

The following instructions or rules apply when solvents / flammables are used:

- Use non-flammable solvents for general cleaning.
- When flammable liquids are used, make sure that no hot work is permitted in the area.
- Store flammables and solvents in special storage areas.
- Check toxic hazards of all solvents before use. Refer to Material Safety Data Sheets (MSDS).
- Provide adequate ventilation where all solvents and flammables are being used.
- Use goggles or face shields to protect the face and eyes from splashes or sprays.
- Use rubber gloves to protect the hands.
- Wear protective clothing to prevent contamination of worker's clothes.
- When breathing hazards exist, use the appropriate respiratory protection.
- Never leave solvents in open tubs or vats - return them to storage drums or tanks.
- Ensure that proper containers are used for transportation, storage and field use of solvents / flammables.
- Where solvents are controlled products, ensure all employees using or in the vicinity of use or storage are trained and certified in the Workplace Hazardous Materials Information System (WHMIS). Ensure all WHMIS requirements are met.

## ***DEFECTIVE TOOLS***

Defective tools can cause serious and painful injuries.

If a tool is defective in some way, **DON'T USE IT.**

### **Be aware of problems like:**

- chisels and wedges with mushroomed heads
- split or cracked handles
- chipped or broken drill bits
- wrenches with worn out jaws
- tools which are not complete, such as files without handles

### **To ensure safe use of hand tools, remember:**

- never use a defective tool
- double check all tools prior to use
- ensure defective tools are repaired

Air, gasoline or electric power tools, require skill and complete attention on the part of the user even when they are in good condition. Don't use power tools when they are defective in any way.

### **Watch for problems like:**

- broken or inoperative guards
- insufficient or improper grounding due to damage on double insulated tools
- no ground wire (on plug) or cords of standard tools
- the on/off switch not in good working order
- tool blade is cracked
- the wrong grinder wheel is being used
- the guard has been wedged back on a power saw

## ***USE OF DISK SANDER***

- Select correct grade of abrasive sheet.
- Table fence and guide must be correctly adjusted and tight. The clearance between sanding disk and table or rest should not exceed one-sixteenth of an inch.
- Goggles must be worn.
- Sand only on the downstroke side of disk.
- Do not hold small pieces in hand. They have a tendency to rotate, with the attendance danger of pulling your fingers against the revolving disk. A few small pieces should be sanded by hand. For a large number, devise a jig to hold them securely.
- If you must leave sander before finishing the job, turn off the power.
- Stop sander to make adjustments.
- Never touch a moving sanding disk.
- Stop the sander by shutting off power and sanding a scrap piece of wood.
- Never operate the disk sander if the paper is loose. Report the condition to Instructor.
- Move the work about to avoid heating and burning a section of the paper.

## ***USE OF DRILL PRESS***

- Never attempt to use a regular auger bit on the drill press or in the hand drill. Auger bits for this machine have the lead screw cut smooth and the square tang cut off.
- Clamp small pieces in a drill vise or clamp them to the table.
- Keep the table clean, but clean it with a brush.
- Wear a shop cap or tie up the hair when working around whirling machinery. Rings, wristwatches, and gloves should not be worn.
- Check to see that the chuck key, drift, and all wrenches are removed before starting the machine.
- Be certain your drills are ground in balance so that they do not tend to whip the work.
- Beware of the coasting machine.
- In using a shaping or routing attachment for the drill press, be sure to study the safety rules for the shaper.
- On deep cuts back out frequently to clean and cool the bit.
- Center punch for drill point. Use only straight sharp drills.
- Drill easily without forcing the bit.

## ***ELECTRICAL SAFETY***

Electricity is a powerful form of energy. If abused or used improperly, it can be hazardous, cause shock, start a fire or even kill.

Follow these precautions when working with electrically powered tools and equipment:

- Electrical repairs to tools and equipment, should only be performed by qualified individuals.
- Never use metal ladders near electric power lines.
- Rubber or plastic coated tool handles should be regularly inspected for cracks, cuts and wear.
- Double insulated tools require only two-pronged connections and should be clearly marked.
- Never stand in water when operating electrical equipment. If you must work in damp areas, use a ground fault circuit interrupter (GFCI). If one is not available, insulate yourself by wearing rubber gloves and rubber boots or stand on insulated platforms or mats.
- Before you start cleaning or adjusting a power tool, disconnect it from the power source.
- If an electrical piece of equipment malfunctions, disconnect and lock out the power source immediately and report the trouble to your supervisor. Make sure the power source is positively locked out when the equipment is being worked on.
- Tag all defective or damaged tools and return them for repair.
- Do not overload electrical circuits; this can cause a fire.
- Never put water on an electrical fire. Use the proper type of fire extinguisher such as one with an "ABC" classification.
- Never cut or remove the grounding prong from a plug.



## **FIRE AND USE OF FIRE EXTINGUISHERS**

Good housekeeping is essential in the prevention of fires. Fires can start anywhere and at any time. This is why it is important to know which fire extinguisher to use and how to use it.

Always keep fire extinguishers visible and easy to get at. Fire extinguishers have to be properly maintained to do the job. Where temperature is a factor, ensure that care is taken in selecting the right extinguisher.

### **Types of Fires**

**Class A:** These fires consist of wood, paper, rags, rubbish and other ordinary combustible materials.

#### **Recommended Extinguishers**

Water from a hose, pump type water can, or pressurized extinguisher, and soda acid extinguishers.

#### **Fighting the Fire**

Soak the fire completely - even the smoking embers.

**Class B:** Flammable liquids, oil, and grease.

#### **Recommended Extinguishers**

ABC units, dry chemical, foam and carbon dioxide extinguishers.

#### **Fighting the Fire**

Start at the base of the fire and use a swinging motion from left to right, always keeping the fire in front of you.

**Class C:** Electrical equipment

#### **Recommended Extinguishers**

Carbon dioxide and dry chemical (ABC units) extinguishers.

#### **Fighting the Fire**

Use short bursts on the fire. When the electrical current is shut off on a Class C fire, it can become a Class A fire if the materials around the electrical fire are ignited.

## **GRINDING**

Severe injury may occur if proper protective equipment is not used and properly maintained.

- Check the tool rest for the correct distance from the abrasive wheel: maximum 1/8" or 3 mm.
- Replace the grindstone when adjustment of the rest cannot provide 1/8" or 3 mm clearance.
- If the wheel has been abused and ground to an angle or grooved, reface the wheel with the appropriate surfacing tool.
- Protect your eyes with goggles or a face shield at all times when grinding.
- Each time a grinding wheel is mounted, the maximum approved speed stamped on the wheel bladder should be checked against the shaft rotation speed of the machine, to ensure the safe peripheral speed is not exceeded. A grinding wheel must not be operated at peripheral speed exceeding the manufacturer's recommendation.
- The flanges supporting the grinding wheel should be a maximum of 1/3 the diameter of the wheel, and must fit the shaft rotating speed according to the manufacturer's recommendation.
- Bench grinders are designed for peripheral grinding. Do not grind on the side of the wheel.
- Do not stand directly in front of grinding wheel when it is first started.

## ***HOUSEKEEPING***

- Keep aisles, walkways and stairs clear.
- Do not block fire exits and fire fighting equipment with materials.
- Materials should be stored with adequate room between for easy access.
- Tools and materials should be cleaned up and put away in designated storage areas after a job is done and at the end of each workday.
- Keep all articles to be disposed of in a designated location and remove regularly.
- Clean up spills immediately in order to avoid a slipping hazard.
- Store flammable liquids in approved sealed containers away from open flame, sparks or sources of ignition.

## **USE OF NON-POWERED HAND TOOLS**

Common hand tools, which many people take for granted, frequently are the most abused. Misuse of hand tools can become a habit that will cause accidents.

Some of the basic rules governing the use of hand tools are as follows:

- Use the right tool for a job. Never use a makeshift or improper fitting tool. Refuse to use tools that aren't in first class condition and report those that give you problems to your supervisor.
- Use wrenches of the right size for the job. Face the jaws of an adjustable wrench in the direction of the pull.
- Make certain that pipe wrench jaws are sharp and chains in good condition so they will not slip.
- Use only tools in good condition. Clean all grease and dirt. Do not use tools with improper handles, including those that are cracked, broken or loose. Hammers or chisels with mushroomed or broken heads should not be used.
- Keep keen-edged blades sharp; store them safely when not in use. Store them with the sharp edge protected. This will help avoid cuts, as well as protect the sharp edge.
- Do not use a hammer with a hardened face on highly tempered tools such as a drill, file, die or jig. Chips may fly.
- Never apply a wrench to moving machinery; stop the machine, then remove all tools before starting it again.
- Never handle any tool in such a manner that you can be injured if it slips. Think about your movements and position your body accordingly.
- Always wear safety goggles when working with hand tools. You only get one pair of eyes.
- Don't carry hand tools in a way that will interfere with using both hands when climbing a ladder.
- Tools should not be put down on scaffolding, overhead piping, on top of step ladders, or other locations from which they could fall on persons below or into equipment.
- Workers carrying tools on their shoulders should pay close attention to clearances when turning so that they will not strike nearby fellow workers.

## **OVERHEAD DOORS**

The following precautions should be reviewed periodically to reduce the number of incidents involving overhead doors.

- Always make sure the overhead door has come to a complete stop before driving through the doorway.
- If the door fails to work properly, get out of the vehicle and push the stop button.
- Don't walk under an overhead door that is not working properly. They are extremely heavy and could cause serious injury or death should they come down.
- Caution: If the overhead door is not working, do not push any other button or try to bring the door down by any other means. Notify Work Control Centre (2602) for issue of a work order.

## ***USE OF PORTABLE LADDERS***

Ladders can be used safely if they are given the respect they deserve.

Before using any ladder, make sure that it is in good condition and is the right ladder for the job to be done.

- When setting up a ladder, secure the base and "walk" the ladder, up into place.
- The ladder should be set at the proper angle of one (1) horizontal to every four (4) vertical.
- Before using a ladder, make sure it is secured against movement.
- When in position, the ladder should protrude one (1) meter above the intended landing point.
- Workers shall not work from the top two rungs of a ladder.
- Don't overreach while on a ladder. It is easier and safer to climb down and move the ladder over a few feet to a new position.
- Always face the ladder when using it. Grip it firmly and use the three-point contact method when moving up or down.
- The minimum overlap on an extension ladder should be one (1) meter unless the manufacturer specifies the overlap.
- Keep both metal and wood ladders, away from electrical sources.
- Due to health and safety concerns, a step ladder is not loaned to any building occupant who has not received training approved by U of L Occupational Health & Safety department.

## **USE OF POWER WASHER**

- Park vehicle away from bay doors and building to allow room to wash and for drainage.
- Turn on water.
- Plug in washer.
- Take washer outside.
- Pull out entire hose before using washer. This will ensure you have enough hose to wash the vehicle. Once system is pressured it is difficult to remove more hose.
- Locate soap bucket and insert the feeder tube into it. The mixture for soap if it is low is 1 litre of soap to 20 gallons of water. (Approximate ratio – use eye to measure).
- Turn temperature level on the washer to 250 degrees.
- Make sure that the extended yellow nozzle is on the tip of the washer. Any other tip may cause damage.
- Turn the red knob to “on” to start the burner to heat the water.
- Turn the soap to the preset setting.
- Wash the vehicle.
- Turn soap off to rinse vehicle.
- Turn burner off and let the unit run on pump for at least the last minute during rinsing. This will allow the burner to cool down and will use up any heated water.
- Do not leave washer running without use for extended periods of time.
- When finished put unit away, turn off water, put soap away, and rewind hose.

## ***PROPER LIFTING TECHNIQUES***

The three major causes of back injury are over-extension, poor lifting techniques and trying to lift too heavy an object. The following tips should help reduce the chances of injuring your back.

- Keep your back straight.
- Get as close to the object as possible to avoid over-extension.
- Place one foot slightly ahead of the other in the direction you intend to move the object.
- Bend your knees and get a good grip on the object.
- Lift with your legs.
- Move forward in the direction of your most forward foot to avoid twisting your back
- Reverse the procedure when placing the object down.
- If at all possible, keep the objects off of the floor, to reduce the strain of lifting in awkward positions.

To reduce the strain on your back while standing.

- Whenever possible, stand with one foot elevated.
- Change positions often.
- Interrupt long periods of standing by sitting whenever possible.



## REPORTING RATTLESNAKES

### Relocation of problem rattlesnakes

During summer months the number of rattlesnake sightings on campus increases significantly. The U of L reports these sightings to Reg Ernst who conducts studies and control activities for the City of Lethbridge. Reg indicates the main campus is not a safe site for either the snakes or campus occupants to interact. The City of Lethbridge wants to relocate any problem rattlesnakes. A problem rattlesnake is defined as any rattlesnake found on roads, walkways, around buildings, or areas frequently used by people.

Relocating rattlesnakes is a delicate issue, and considering the potential danger in working with poisonous snakes, it is necessary to have a professional do the removal. Proper relocation involves moving the snake to an area with a suitable wintering den.

### What should you do if you see a rattlesnake?

- Observe but do not attempt to capture the snake.
- Contact the phone numbers below in the order listed until contact is made.

<b>RATTLESNAKE REPORTING CALL LIST</b>	
<b>Contact</b>	<b>Phone/Cell Number</b>
Wonnita Andrus, U of L	795-3889
Reg Ernst, City of Lethbridge	381-0528 or 360-0371 (cell.)
Ian Wells, Grounds Superintendent	317-0733
Security	2603 or 2345
Alberta Fish & Wildlife	381-5266 or 1-800-642-3800 (after hours)
Helen Schuler Coulee Centre	320-3064

- If you are unable to contact an outside agency for removal, the snake still reflects as a safety hazard and must be removed by U of L personnel. Contact Ian Wells (317-0733) or Security (2603 or 2345) to capture the rattlesnake.
  - The container holding the snake must be kept in the shade after capture as rattlesnakes are very heat sensitive.

## **USE OF STEP LADDERS**

As with all ladders, make sure that the Step Ladder is in good condition, and is the right ladder for the job to be done.

- Step Ladders are to be used only on clean and even surfaces.
- No work is to be done from the top two steps of a Step Ladder, counting the top platform as a rung.
- No work is to be done from the back side of the Step Ladder.
- When in the open position ready for use, the incline of the front step section shall be one (1) horizontal to six (6) vertical.
- The Step Ladder is only to be used in the fully opened position with the spreader bars locked.
- Tops of Step Ladders are not to be used as a support for scaffolds.
- Don't overreach while on the ladder. Climb down and move the ladder over to a new position.
- Only CSA Standard ladders will be used.
- Due to health and safety concerns, a step ladder is not loaned to any building occupant who has not received training approved by U of L Occupational Health & Safety department.

## **USE OF COMPRESSED AIR**

Air powered tools in construction range from stapling guns to jack hammers. If not treated with respect, these tools can become a powerful enemy rather than a servant.

- Compressed air must not be used to blow debris or to clear dirt from any worker's clothes.
- Compressed air must not be used to blow dust, chemicals, metal filings, etc. from work surfaces. Surfaces should be swept clean.
- Ensure that the air pressure has been turned off and the line pressure relieved before disconnecting the hose or changing tools.
- All hose connectors must be of the quick disconnect pressure release type with a "safety chain / cable".
- Wear personal protective equipment such as eye protection and face shields, and ensure other workers in the area are made aware of or have restricted access to the hazard area.
- Hoses must be checked on a regular basis for cuts, bulges, or other damage. Ensure that defective hoses are repaired or replaced.
- A proper pressure regulator and relief device must be in the system to ensure that the correct desired pressures are maintained.
- The correct air supply hoses must be used for the tool / equipment being used.
- The equipment must be properly maintained according to the manufacturer's requirements.
- Follow manufacturer's general instructions and comply with legislated safety requirements.

## ***USE OF ELECTRICAL EXTENSION CORDS***

Extension cords are one of the most abused and neglected items on the job site. They are run over, stretched, pulled, twisted and exposed to all the elements. They have been the cause of more accidents than the tools for which they are used.

The following recommendations should be observed whenever extension cords are used:

- Prior to use, inspect cords to ensure that:
  - The insulation is intact around the plugs at both ends of the cord.
  - The pins on the plugs are not broken or burned.
  - The outer jacket of the cable is intact along its entire length.
- Extension cords should be replaced or repaired when a defect is found.
- Do not assume that everyone is able to repair or replace plug caps. All personnel should be educated to recognize the importance of properly wired circuits.
- Use only cords that are rated for outdoor use on construction jobs. These industrial cables (types S, SO, SOW) are oil, water, and abrasion resistant.
- Never unplug any cord by pulling the cable.
- Never lay out a cord in any area where it could be damaged by vehicular or pedestrian traffic or where materials could fall or be piled on it.

## ***USE OF PORTABLE GRINDERS***

Abrasive wheels can cause severe injury. Proper storage of new wheels, proper use of wheels and proper maintenance of wheels must be observed.

- Familiarize yourself with the grinder operation before commencing work.
- Ensure proper guards are in place and that, safety glasses, face shields, gloves and safety boots are worn when using portable grinders.
- Never exceed the maximum wheel speed (every wheel is marked). Check the speed marked on the wheel and compare it to the speed on the grinder.
- When mounting the wheels, check them for cracks and defects, ensure that the mounting flanges are clean and the mounting blotters are used. Do not over tighten the mounting nut.
- Before grinding, run newly mounted wheels at operating speed to check for vibrations.
- Do not use grinders near flammable materials.
- Never use the grinder for jobs which it is not designed for, such as cutting.

## **USE OF POWER TOOLS**

All power tools are designed for unique applications, they have their limitations and can create potential hazards when improperly used. Here are some points to remember when using power tools:

- The operation and repair of any power tool must be restricted to experienced, trained, authorized personnel.
- Select the proper tool for the job. The size of the power tool to be used is based on both the limitations of the tools themselves and the amount of work to be done.
- Always be alert to potential hazards in the area such as debris, damp floors or combustible materials. In wet areas, use insulated platforms, rubber mats, rubber gloves and rubber boots for an additional factor of safety.
- Make sure all power tools are of the double-insulated type or they are properly grounded. If the tool is equipped with a three-prong plug, use it as it is meant to be used. Electrical circuits intended for power tools should be provided with ground fault circuit interceptors (GFCI's)
- Appropriate protective clothing should be worn at all times. Avoid wearing loose clothing or jewelry that can catch in moving-parts. Wear safety glasses, hearing protection, and / or a dust mask if the operation requires.
- Be sure not to handle a power tool in a manner that can injure you if it slips. Think about your movements and position your body accordingly. Keep proper footing and balance at all times. Avoid over reaching.
- Never rest a power tool against the body when loading or making adjustments. Use brushes, vacuuming equipment or special tools to remove chips or sawdust. Secure work using a clamp or vice when practical. Never apply a power tool to a moving object.
- Keep guards in place and in working order. Don't remove or wedge the guard out of the way. If the guard has to be retracted, use the handle on the guard.
- Beware of accidental start-up. Make sure the switch is OFF before plugging in the cord and before investigating a power loss. Do not carry a plugged-in tool with your finger on the switch.
- Have all power tools serviced by a professional if it shows the slightest defect or is not running properly.

## **USE OF POWER TOOLS (cont.)**

- Clean your tools after you're finished with your work. Make sure keen-edged blades, drill bits, routers, etc. are sharp, regularly maintained and stored in a dry secure place where they won't be tampered with.
- Don't set the tool down or leave it unattended until all moving parts stop.

## **PROPER USE OF ROTATING EMERGENCY FLASHING WARNING LIGHTS ON VEHICLES**

Why do we have these lights?

- Service vehicles that park on roadways or along curbs on campus, in order to do their work, often create a traffic hazard. Flashing warning lights have been installed on all service vehicles to help increase their visibility to oncoming vehicles.

When are flashing lights used?

Flashing lights must be used when:

- parking along any curbs on campus
- stopping/parking in the middle of roadways or parking lot lanes
- leading a slow moving vehicle when hauling trailers or materials

Flashing lights are not used when:

- driving off campus - It is illegal for U of L to use these lights off campus.
- parking in parking spots or when off roadways

## **MOSQUITOES / WEST NILE VIRUS**

What is West Nile Virus?

- Is a virus carried by mosquitoes that can cause illness ranging from mild flu like symptoms to encephalitis (brain swelling) or meningitis (swelling of the membrane lining brain or spinal cord).

How do people contract it?

- Mosquitoes get it from infected birds (i.e. crows)
- People get it by being bitten by mosquitoes

Signs and symptoms

- Symptoms can develop between 2 – 15 days after bite. 80% of people have no symptoms, 20% get a mild fever, and 1% develops serious injury.
- Serious symptoms include: severe headache, high fever, stiff neck, muscle weakness, paralysis, confusion, and coma.
- Some people never recover from the virus. Others have prolonged health problems. 5.5% of the 1% who are seriously ill dies.

Who is at risk?

- Anyone working outdoors or being outdoors during the time mosquitoes are active.

How to protect yourself?

- Wear personal protective equipment
  - Wear baggy, long sleeved shirts and pants when outdoors.
  - Use insect repellents with DEET. (Read attached Safe Use of Insect Repellent)

What if I find a dead bird?

- Dead crows can be submitted for testing as they are the most vulnerable birds.
- Collect dead crows using a paper picker and place in several plastic bags. Long dead, rotting crows should be disposed of in the garbage. Crows, which are freshly dead, should be turned in to the Superintendent of Grounds. They will be turned over to the Fish and Wildlife office for testing.

What is the official U of L Grounds department policy for dealing with the threat of West Nile Virus?

- Long pants must be worn at all times when working on Grounds.
- All employees of the Grounds Department have been given mosquito jackets made of a mesh material, which can be worn at times when mosquitoes are active.
- The Grounds Department supplies insect repellent, which should be used on hands, arms, face, and neck to prevent bites in those areas.
- Long sleeved shirts are recommended to be worn but t-shirts, with at least a 4 inch sleeve, can be worn as long as exposed skin is treated with insect repellent.
- Hats are required to be worn to protect the head from insects and sun/heat.

Compliance with these instructions is a condition of employment.



# Safe Use of Insect Repellents

## Personal Protective Measures

- Use non chemical methods to reduce mosquito bites:
- Wear light coloured, long sleeves and pants
- Stay indoors during peak mosquito activity – dusk and dawn.
- Consider staying under mosquito netting if outdoors while mosquitoes are active
- Don't forgo repellent for anti mosquito gadgets, they haven't been proven to reduce bites.

## Using in insect repellent

- Read the label before use.
- Use small amounts only on exposed skin or on top of clothing. Do not use under clothing.
- Repeat application only if necessary – biting is occurring.
- Do not use on open wounds, irritated skin or sunburned skin.
- Use in well ventilated areas (not inside a tent) and avoid breathing in spray mists.
- Wash skin with soap and water when you return indoors and protection is no longer needed.
- If you think that you may be sensitive to a repellent, put onto a small area of skin on your arm and wait 24 hours to see if a reaction occurs.
- Repellents with DEET have been used by millions of people world wide for over 30 years. Few adverse reactions have occurred. Reactions can occur if products are not used correctly.

## Choosing a repellent

- Use according to need. If you plan to be outdoors for a shorter period of time a lower concentration can be used.
- 30% DEET provides 6.5 hours protection
- 15% DEET provides 5 hours of protection
- 10% DEET provides 3 hours protection
- 5% DEET provides 2 hours protection.
- Canada's Pest Management Regulatory Agency is evaluating repellents containing citronella and lavender oil. Citronella products registered in Canada give less than one hour protection. Registered lavender oil products give less than 30 minute protection. Citronella based products may also cause allergic reactions.

Use of repellents by age group:

- 12 years of age or older:
- Products with 30% DEET may be used.

For more information contact your physician or Community Health office in your area

UNIVERSITY OF LETHBRIDGE  
PHYSICAL PLANT AND OPERATIONS

HEALTH & SAFETY PROGRAM

**STANDARD OPERATING PROCEDURES**

**SOP #: BM1015**  
**REKEYING LOCK**

**TASK.**

Re-key lock

**PROCEDURE:**

- Follow standard procedure for type of lock being re-keyed
- Bitting numbers available from Building Maintenance if not provided with Work Order
- Leave key(s) with Work Control Centre and have them sign Key Request Form

**FREQUENCY**

As requested

**TOOLS/EQUIPMENT REQUIRED:**

- Pin kit
- Locksmith tools

**SOP #: BM1016**  
**FORCED ENTRY**

**TASK:**

Remove padlock or pick lock

**PROCEDURE:**

- Cut off padlock
- Pick open lock

**FREQUENCY:**

As requested

**TOOLS / EQUIPMENT REQUIRED:**

- Bolt cutters
- Picks

**SPECIAL INSTRUCTIONS:**

- Do not cut off a lock or pick open a lock without a Work Order or permission from Building Maintenance Superintendent
- Individual requesting entry should be present when lock is opened or removed.

UNIVERSITY OF LETHBRIDGE  
PHYSICAL PLANT AND OPERATIONS

HEALTH & SAFETY PROGRAM

**PERSONAL PROTECTIVE EQUIPMENT**

# ***“INFO SHEET” FOR EYE & FACE PROTECTION***

## **GENERAL INFORMATION**

This PPE is designed to protect the worker from such hazards as:

- flying objects and particles,
- molten metals,
- splashing liquids, and
- ultraviolet, infrared and visible radiation (welding).

This PPE has two types. The first type, "basic eye protection", includes:

- eyecup goggles
- monoframe goggles and spectacles with or without side shields

The second type, "face protection," includes:

- metal mesh face shields for radiant heat or hot and humid conditions
- chemical and impact resistant (plastic) face shields
- welders shields or helmets with specified cover
- filter plates and lens

Hardened glass prescription lens and sport glasses are not an acceptable substitute for proper, required Industrial safety eye protection.

Comfort and fit are very important in the selection of safety eyewear. Lens coatings, venting or fittings may be needed to prevent fogging or to fit with regular prescription eyeglasses.

Contact lens should NOT be worn at the work-site. Contact lens may trap or absorb particles or gases causing eye irritation or blindness. Hard contact lens may break into the eye when hit.

Basic eye protection should be worn with face shields. Face shields alone often aren't enough to fully protect the eyes from work hazards. When eye and face protection is required, advice from the OH&S office, Material Safety Data Sheet (MSDS) or your supplier, will help in your selection.

For more information, look at:

Alberta's O. H. & S. Statute and Regulations, and  
CSA Standard "Industrial Eye and Face Protectors" 294.3 - M1982.

## **Do**

- ensure your eye protection fits properly (close to the face)
- clean safety glasses daily, more often if needed
- store safety glasses in a safe, clean, dry place when not in use
- replace pitted, scratched, bent and poorly fitted PPE (damaged face/eye protection interferes with vision and will not provide the protection it was designed to deliver).

## **Don't**

- modify eye/face protection
- use eye / face protection which does not have a CSA certification (CSA stamp for safety glasses is usually on the frame inside the temple near the hinges of the glasses)

## **Eye Protection For Welders**

Welders and welders' helpers should also wear the prescribed equipment. Anyone else working in the area should also wear eye protection where there is a chance they could be exposed to a flash.

# **“INFO SHEET” FOR FALL PROTECTION**

## **General Information**

As outlined in the AHRE Occupational Health and Safety Code; Part 9 Fall Protection;

- 139 (1)** An employer must ensure that workers use a fall protection system at a temporary or permanent work area if
- (a)** a worker may fall 3 meters or more, or
  - (b)** there is an unusual possibility of injury if a worker falls less than 3 meters.

Employers must develop a fall protection plan where the above is true, to include the following;

- 143 (2)** A fall protection plan must specify
- (a)** the fall hazards at the work site,
  - (b)** the fall protection system to be used at the work site,
  - (c)** the procedures used to assemble, maintain, inspect, use and disassemble the fall protection system, and
  - (d)** the rescue procedures to be used if a worker falls, is suspended by a personal fall arrest system or safety net and needs to be rescued.

Full body harness systems are to be used to provide workers working at heights above ground level with freedom of movement and protection from falls. These devices will arrest a fall and absorb some of the shock of the fall. The systems are usually worn around the body and attached to a lanyard, fall arresting device or rope grab. Better quality systems usually have some form of shock absorber in the system.

A lifeline should never be used as a service line. The only time a lifeline becomes a load bearing line is in the event of a fall. At all other times it should be just slack enough to permit free movement on the service lines.

It is very important to get quality advice in the selection, purchase and maintenance of your fall arresting equipment.

Please refer to the following CSA and ANSI Standards when selecting equipment;

- 145 (1)** Harnesses: CAN/CSA-Z259.10-M90 (R1998), *Full Body Harnesses*
- (3)** Lanyards: CAN/CSA-Z259.1-95 (R1999), *Safety Belts and Lanyards*
- (4)** Shock Absorbers: CAN/CSA-Z259.11-M92 (R1998), *Shock Absorbers for Personal Fall-Arrest Systems*
- (5)** Connecting Components: CAN/CSA-Z259.12-01, *Connecting Components for Personal Fall Arrest Systems (PFAS)*



**Do**

- obtain expert advice before purchasing a fall arresting device
- properly train and practice with the system you decide to use
- use webbing type harnesses instead of leather harnesses
- use only the manufacturer's components for replacement parts
- inspect carefully before each use (inspection to be performed by a trained worker)
- have the harness fitted snugly to the worker using the system
- ensure that the anchor points are secure and able to support the load In the event of a fall
- follow the manufacturer's instructions on care and use
- ensure all lines used with the systems have thimbles
- use only the proper safety rated fastenings with the system
- use a full body harness with shock absorber whenever possible

**Don't**

- modify, change or put additional holes in the harness or hardware
- jerry-rig the system
- use the system for any other than its intended use
- use the lifeline for a service line

## ***“INFO SHEET” FOR FOOT PROTECTION***

### **General Information**

Safety footwear is designed to protect against foot hazards in the workplace. Safety footwear protects against compression, puncture injuries, and impact.

Safety footwear is divided into three grades, which are indicated by colored tags and symbols.

The tag color tells the amount of resistance the toe will supply to different weights dropped from different heights.

The symbol indicates the strength of the sole. For example, a triangle means puncture-resistant sole able to withstand 135 kg (300 ft. lbs.) of pressure without being punctured by a 5 cm (2 inch) nail. For more information, look at Alberta's O. H. & S. Statute and Regulations or CSA Standard "Protective Footwear" 2195-M1981.

In construction, it is recommended that only the green triangle grade of footwear, which also gives ankle support, be used.

Your choice of protective footwear should always over protect, not under protect.

### **Do**

- choose footwear according to job hazard and CSA Standards.
- lace up boot and tie laces securely; boots don't protect if they are a tripping hazard or fall off.
- use a protective boot dressing to help the boot last longer and provide greater water resistance (wet boots conduct current).
- choose a high cut boot to provide ankle support (less injuries).

### **Don't**

- wear defective safety footwear (i.e., exposed steel toe caps).
- under protect your feet or modify safety footwear.

## ***“INFO SHEET” FOR HEARING PROTECTION***

### **General Information**

Hearing protection is designed to reduce the level of sound energy reaching the inner ear.

The "rule of thumb" for hearing protection is: use hearing protection when you can't carry on a conversation at a normal volume of voice when you are 3 feet apart.

Remember this is only a rule of thumb. Any sound over 80 dba requires hearing protection. Hearing loss can be very gradual, usually happening over a number of years.

The most common types of hearing protection in the construction industry are earplugs and earmuffs. If you choose to use the other types of hearing protection, ask your safety supplier or OH&S office for further information.

It is important to have different styles of hearing protection available. Different styles allow a better chance of a good fit. Each person's head, ear shape and size is different. One style may not fit every person on your crew. If hearing PPE does not fit properly or is painful to use, the person will likely not use it. If the hearing protection is not properly fitted, it will not supply the level of protection it was designed to deliver.

Most earplugs, if properly fitted, generally reduce noise to the point where it is comfortable (takes the sharp edge off the noise).

If your hearing protection does not take the sharp edge off the noise, or if workers have ringing, pain, headaches or discomfort in the ears, your operation requires the advice of an expert.

Workers should have their hearing tested at least every year, twice a year if they work in a high noise area.

## OH&S NOISE REGULATION – EXPOSURE LIMITS

TABLE 1  
OCCUPATIONAL NOISE LEVEL EXPOSURE LIMITS  
(Figures to be prorated if not specified)

<u>Exposure Level (dBA)</u>	<u>Duration</u>
82	16 hours
83	12 hours
84	10 hours
85	8 hours
88	4 hours
91	2 hours
94	1 hour
97	30 min
100	15 min
103	8 min
106	4 min
109	2 min
112	1 min
115 and greater	0

Where applicable, values have been rounded to nearest whole digit

TABLE 2  
SELECTION OF HEARING PROTECTORS

<u>Maximum Noise Level (dBA)</u>	<u>CSA Class of Hearing Protector</u>
85-89	C
90-95	B
96-105	A
Greater than 105	A plug + A or B muff

TABLE 3  
PERMISSIBLE BACKGROUND NOISE CONDITIONS  
FOR AUDIOMETRIC TESTING

<u>Octave Band Centre Frequency</u>	<u>Maximum Levels (dBA)</u>
500	30
1000	30
2000	37
4000	47
8000	52

***\*For more information refer to Occupational Health & Safety Noise Regulation***

## **“ INFO SHEET” FOR SUN PROTECTION**

For the purposes of this manual and work performed on The University of Lethbridge campus, the guidelines for Sun Protection are defined by but not limited to the following:

- Shirts with sleeves of not less than 4” when measured from the underseam to the sleeve hem.
- Full length pants that cover the top of work boots.
- Eye protection with tinted lenses to reduce / block Ultraviolet (UV) rays.
- A hat with a brim that will provide adequate protection from the sun for neck, ear, and face areas. (*Recommended*)
- Sunscreen with a recognized Sun Protection Factor (SPF) of 15 or higher. (Note: Sunscreen should be applied at least 20 minutes before going out into the sun as recommended by Health Canada). (*Recommended*)

For more information on the effects of exposure to sunlight refer to the Health Canada website located at [www.hc-sc.gc.ca](http://www.hc-sc.gc.ca).