University of Lethbridge

FIAT LUX

Physical Plant Operations & Planning

Recycling Department

Health & Safety Program

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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HEALTH & SAFETY PROGRAM

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 Moderate or High Hazards associated with them.

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

Conducted By: Rob Kern
Mark Sudo
Jayne Yates

Date: October - December 2004

Baler

- #4 Dust / Vapours (6)
- #5 Eye Injury (6)
- #9 Repetitive Strain / Motion (10)
- #10 Lifting (10)
- #14 Pinch Points (9)
- #15 Cuts (6)

Compactor

- #7 Noise (6)
- #9 Repetitive Strain / Motion (10)
- #10 Lifting (10)
- #11 Slips / Falls (6)
- #14 Pinch Points (6)
- #15 Cuts (8)

Fluorescent Tube Inventory

- #2 Chemical Exposure (8)
- #4 Dust / Vapours (9)
- #8 Eye Injury (10)
- #9 Repetitive Strain / Motion (6)
- #10 Lifting (9)
- #15 Cuts (10)

Gathering / Sorting Recyclables

- #4 Dust / Vapours (paper) (6)
- #9 Repetitive Strain / Motion (11)
- #10 Lifting (11)
- #15 Cuts (10)

Transporting / Disposing

- #1 Falling Objects (14)
- #3 Exposure to Heat / Cold (11)
- #4 Dust / Vapours (6)
- #5 Light Radiation (13)

- #8 Eye Injury (10)
- #9 Repetitive Strain / Motion (13)
- #10 Lifting (14)
- #11 Slips / Falls (10)
- #12 Ice / Docks / Roads (12)
- #13 Rotating Equipment (15)
- #14 Pinch Points (14)
- #15 Cuts (12)

UNIVERSITY OF LETHBRIDGE
PHYSICAL PLANT AND OPERATIONS

HEALTH & SAFETY PROGRAM

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.

BALER

GENERAL / BRIEF DESCRIPTION OF TASK:

- Operation of Baler to crush loose cardboard into a bound bale.

FREQUENCY OF TASK PERFORMED:

- Daily

HAZARDS IDENTIFIED:

- Dust
- Eye Injury
- Repetitive Motion / Strain
- Pinch Points
- Cuts
- Lifting

P.P.E. REQUIRED:

- Gloves
- Overalls
- Safety Shoes
- Safety Glasses

SPECIAL TOOLS REQUIRED (if any):

- Utility Knife
- Straps / Bungee Cords
- Truck
- Hydraulic Lift & Pallet Jack
- Forklift

SAFE WORK PROCEDURE:

- Visually inspect area for possible hazards.
- Ensure proper attire is being worn ie. Safety shoes, gloves, and overalls
- Refer to applicable ***"Info Sheets"*** for Personal Protective Equipment as found in Appendix 'B'.
- Ensure an 8' area in front of baler is clear and free from all matters of debris.
- Refer to Safe Work Practice for "***Proper Lifting Techniques***" as found in Appendix 'A'.
- Make sure the material fed into the baler is the right size in order for safety gate to close properly.
- Work in rotating shifts to offset any repetitive strain / motion which could result in muscle injury.
- Be sure to sweep area to prevent excess dust.
- Clear gate area, place both hands on handle in order to reduce risk of pinching hands in gate while crushing cardboard.
- Activate the auto cycle on the control panel.
- When light indicates bale is made, the hydraulic press will hold cardboard in place.
- Open the front door – the gate will automatically lift up.
- Feed wires through the 6 dedicated channels and tie off in front.
- Place pallet in front of baler.
- The area in front of baler must be clear of people and other objects, in the event a

wire springs loose and becomes projectile when the bale is released.

- Stand to the side of the baler beside the control panel when ejecting bale to prevent possible injury.
- Release press to eject bale onto the pallet.
- Using the forklift move pallet with bale to the side until contracted recycling company picks it up.

COMPACTING WASTE

GENERAL / BRIEF DESCRIPTION OF TASK:

- To compact garbage from various areas on campus.

FREQUENCY OF TASK PERFORMED:

- Daily

HAZARDS IDENTIFIED:

- Noise
- Repetitive Motion / Strain
- Lifting
- Slips / Falls
- Pinch Points
- Cuts

P.P.E. REQUIRED:

- Rubber Gloves
- Overalls
- Safety Shoes

SPECIAL TOOLS REQUIRED (if any):

- Utility Knife
- Carts / Dumpsters
- Floor Squeegee
- Bungee Cords

SAFE WORK PROCEDURE:

- Visually inspect area for possible hazards.
- Ensure proper attire is being worn ie. Safety shoes, gloves, and overalls
- Refer to applicable ***"Info Sheets"*** for Personal Protective Equipment as found in Appendix 'B'.
- Bring waste bins to SU loading dock area on the back of the truck.
- Inspect surface of mechanical lift to ensure the plate is dry and free of debris prior to taking bins off the back of the truck.
- If there is ice on the deck plate, use the de-icing agent in the pail to try to eliminate injury due to slips and falls.
- When removing bins off the back of the truck – always lift in pairs to eliminate injury due to heavy lifting.
- Refer to Safe Work Practice for "***Proper Lifting Techniques***" as found in Appendix 'A'.
- Refer to Safe Work Practice for "***Hydraulic Scissor Lift – SU Loading Dock***" as found in Appendix 'A'.
- Inspect compactor to ensure it is clear and free from possible obstructions.
- If deck plate in front of the compactor has any grease, water or other film on surface, clean with a wet mop before walking or standing on it.
- Ensure that all garbage bags are tied up correctly and not to overfill the hopper.
- Be sure to inspect bags for possible protruding glass or other sharp objects that

could cause cuts.

- If bags or objects are too heavy to lift, obtain assistance from co-workers.
- When hopper is full and waste is ready to be compacted, ensure safety gate is closed.
- Make sure to stand clear of compactor when compacting is taking place.
- Never add of shift bags in hopper when machine is in use.
- If a jam occurs, immediately activate the emergency stop button on the control panel before trying to clear the jam. ***NOTE*****:** The emergency gate is also equipped with a kill switch that is activated when the gate is opened.
- When you are finished compacting waste, inspect area and clean up prior to leaving ie. This includes wet mopping anything that may have leaked onto the deck plate.

HYDRAULIC SCISSOR LIFT

GENERAL / BRIEF DESCRIPTION OF TASK:

- Use of Hydraulic Scissor Lift to load / unload freight.

FREQUENCY OF TASK PERFORMED:

- Daily

HAZARDS IDENTIFIED:

#11 – Slips / Falls
#12 – Ice / Docks & Roads
#14 – Pinch Points

P.P.E. REQUIRED:

- Gloves

SPECIAL TOOLS REQUIRED (if any):

Moving Dollies / Moving Carts

SAFE WORK PROCEDURE:

- Visually inspect area for possible hazards.
- Depending on the type of freight or containers that you are handling gloves may be worn.
- Ensure security railings on lift are at the appropriate height and securely in place prior to operating Scissor Lift.
- Raise the front flap on the ramp to the upright position.
- Maintain a clear work surface of the lift to prevent slips and falls due to ice / snow / dirt buildup on the lift.
- Carefully back truck up to ramp, making sure that the deck of the truck does not hang over the lift area.
- Maintain visual contact with the lift at all times while operating. The control switches are attached to a cable, which makes them portable. Walk outside to the lift area with the controls to operate lift.
- ***Never jump off lift when lift is in raised position.***

To Load Freight

- Using a moving dolly or cart, load the freight onto the lift.
- Raise the lift to be level with the height of the deck of the truck.
- Depending on the freight, this may be a two-person job, with one person stabilizing the freight and one person operating the controls.
- Place flap in down position to bridge truck with ramp.
- Transfer the freight from the ramp to the truck and secure in place.
- Check to make sure there are no objects or people directly under path of ramp.
- Lower ramp.

To Unload Freight

- Raise ramp to be level with the height of the deck of the truck.
- Place flap in down position to bridge truck with ramp.
- Transfer freight from the truck onto the ramp.
- Check to make sure there are no objects or people directly under path of ramp.
- Lower ramp.

- Unload freight.

NOTE: The maintenance of the Hydraulic Lift is a semi-annual scheduled Preventative Maintenance Work Order that is carried out by the Motor Vehicle Pool Mechanic. The cleaning out of the pit is done by Grounds Maintenance and is scheduled in conjunction with the maintenance P.M.

TRUCK WITH LIFT - RECYCLING

GENERAL / BRIEF DESCRIPTION OF TASK:

- Use of Truck with Lift to transport freight around campus and across town.

FREQUENCY OF TASK PERFORMED:

- Daily

HAZARDS IDENTIFIED:

#3 – Cuts
#11 – Slips / Falls
#12 – Ice / Docks & Roads
#14 – Pinch Points

P.P.E. REQUIRED:

- Gloves

SPECIAL TOOLS REQUIRED (if any):

Moving Dollies / Moving Carts
Tie Down Straps / Rope / Bungee Cords
Forklift (where freight is on pallets)

SAFE WORK PROCEDURE:

- Visually inspect area for possible hazards.
- Gloves are to be worn.
- Maintain a clear work surface of the lift to prevent slips and falls due to ice / snow / dirt buildup on the lift.
- Ensure that the area directly behind the truck under the path of the lift is clear of any obstructions prior to operating lift.
- Maintain visual contact with the lift at all times while operating.
- Always try to park on level ground when loading / unloading of freight to prevent personal injury or damage to freight due to sliding / tipping.
- ***Never jump off of lift when it is in the raised position. Use step ladder on the side of the truck.***

To Load Freight

- Using the controls located at the back of the truck, fold out lift and lower to the ground.
- Depending on the freight, this may be a two-person job, with one person stabilizing the freight and one person operating the controls ie. wheeled carts
- Load freight using moving dolly or cart and raise lift to the height of the deck of the truck.
- Ensure no foreign objects (freight) or body parts are in the path of travel of lift connecting to the bed of truck.
- Move the freight as close as possible to the front of the truck.
- Secure freight using rope / tie down straps / bungee cords
- Fold lift up at back of the truck.
- While transporting freight to desired location, be aware of position of freight at all times. If the freight tips over or slides out of position, immediately stop and re-secure.

To Unload Freight

- Carefully move freight to back of truck.
- Check to make sure there are no obstructions under path of lift prior to lowering.
- Fold out lift, and position freight to be lowered.
- Lower lift.
- Depending on the freight, this may be a two-person job, with one person stabilizing the freight and one person operating the controls.
- Unload freight.
- Reposition lift to the height of deck and fold up across back of truck.

NOTE: The maintenance of the Truck Lift is a semi-annual scheduled Preventative Maintenance Work Order that is carried out by the Motor Vehicle Pool Mechanic.

TRANSPORTING & DISPOSING OF RECYCLABLES

GENERAL / BRIEF DESCRIPTION OF TASK:

- Transporting and disposing of collected recyclables to the compactor or baler.

FREQUENCY OF TASK PERFORMED:

- Daily

HAZARDS IDENTIFIED:

- Falling Objects
- Heat / Cold
- Dust / Vapours
- Light Radiation
- Eye Injury
- Repetitive Strain / Motion
- Lifting
- Slips / Trips / Falls
- Ice / Roads / Docks
- Rotating Equipment
- Pinch Points
- Cuts

P.P.E. REQUIRED:

- Gloves
- Coveralls
- Safety Shoes
- Safety Glasses

SPECIAL TOOLS REQUIRED (if any):

- Flatbed Truck
- Straps / Bungee Cords
- Hydraulic Lift & Pallet Jack
- Forklift

SAFE WORK PROCEDURE:

- Visually inspect area for possible hazards.
- Inspection to include all decks and loading surfaces – truck and scissor lift

Bagged Waste / Paper Recycling

- Load carts onto scissor lift
- Refer to Safe Work Practice for “Hydraulic Scissor Lift” as found in this section.
- Raise lift to height of truck deck.
- Transfer carts onto truck.
- Move carts as close to front of deck as possible.
- Secure carts with bungee cords (as they are equipped with wheels and are at risk to roll in transport) as not to lose carts in transport resulting in injury to property or persons.
- Reverse procedure to unload carts.

Cardboard

- Follow above procedure
- Always use scissor lift to load cardboard at SU or Level 4.
- Use forklift to unload the cardboard at SB6 Baling station.

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HEALTH & SAFETY PROGRAM

ORIENTATION & TRAINING

RECYCLING – TRAINING MATRIX

Developed by: Rob Kern
Jayne Yates

Date: March 2005

Employee Name: _____

Employment Start Date: _____ Orientation Date: _____

Task	Training Date	Proficiency Date	Employee	Supervisor
PPE				
Proper Use & Care:				
Safety Glasses				
Hearing Protection				
Safety Boots				
Gloves				
Recycling				
Gather Recycling				
Sorting Recycling				
Transporting Waste				
Fluorescent Tube Inventory				
Baler				
PPE				
Operation				
Compacting				
Baling				
Emergency Shutdown				
Compactor				
PPE				
Operation				
Compacting				
Emergency Shutdown				
Task	**Training Date**	**Proficiency Date**	**Employee**	**Supervisor**
Safety Manual				
Safe Work Procedures				
Pallet Jack				

Forklift				
PPE Required				
Safe Operation				
Changing Propane Tanks				
Log In/Out Books				
Pretrip:				
Tires				
Fluid Lines				
Guage– Propane				
Hydraulic Lines				
Forks (journals)				
Cleanliness				
Emergency				

UNIVERSITY OF LETHBRIDGE
PHYSICAL PLANT AND OPERATIONS

HEALTH & SAFETY PROGRAM

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, Recycling & Grounds are reported to the Administrative Support in the 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.

An online 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 is retrievable by Physical Plant staff through the work order data base. A work order is generated from the request and scheduled to the appropriate employee for attention.

All work orders are tracked in a data base system, which is accessible by all Physical Plant Staff. 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.

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. Any deficiencies found that require immediate corrective action due to imminent danger to employees are corrected at this time and the information pertaining to the work is recorded on the form.

A list of the Formal Inspections with the inspection criteria for the Recycling Department can be found on the following pages.

OUT-OF-SERVICE REQUEST

ITEM DESCRIPTION: _____ SERIAL #: _____

LOCATION: _____

EMPLOYEE: _____ DEPARTMENT: _____

EXISTING PROBLEM(S): _____
_____
_____

SIGNATURE: _____ DATE SUBMITTED: _____

SUBMITTED TO: _____ DEPARTMENT: _____

INSPECTED BY: _____ DATE: _____

IMMEDIATE ACTION: _____Lockout / Tagout _____ Remove

CORRECTIVE ACTION: _____Repair _____ Replace

WO ISSUED: _____Yes _____ No WO #: _____

REPAIRED BY: _____ DEPARTMENT: _____

DATE: _____

COMMENTS: _____
_____
_____
_____
_____
_____
_____
_____

REVIEWED BY: _____ DATE: _____

BACK IN SERVICE DATE: _____

B420 Recycling Room

Item	Satisfactory	Needs Repair	Out of Service	Tagged / Removed from Site	WO Requested Y / N	Repair	Replace
Recycling Carts							
Wheels							
Bolts							
Cracks							
Wear / Tear							
Waste Carts							
Wheels							
Bolts							
Cracks							
Wear / Tear							
Lights							
Doors							
Floors							
Drains							
Hose							
Heater							
Housekeeping							
First Aid Kit							
Cleaners – refill?							

Corrective Measures Required: _____
_____
_____
_____
_____
_____

Inspection Completed By: _____ Date: _____

Inspection Reviewed By: _____ Date: _____

Corrective Measures Carried Out: _____
_____
_____
_____

Completed By: _____ Date: _____

Approved By: _____ Date: _____
(Caretaking Manager)

Baler

Item	Satisfactory	Needs Repair	Out of Service	Tagged / Removed from Site	WO Requested Y / N	Repair	Replace
Emergency Shut Downs							
Button on Panel							
Hinges							
Gates							
Hinges							
Latches							
Locking Pins							
Housekeeping							
Hydraulics							
Hoses							
Connections							
Leaks							
Baler Ejection Hook							
Shear Pins							
Chain Links							
Electrical Cords							

Corrective Measures Required: _____
_____
_____
_____
_____
_____

Inspection Completed By: _____ Date: _____

Inspection Reviewed By: _____ Date: _____

Corrective Measures Carried Out: _____
_____
_____
_____

Completed By: _____ Date: _____

Approved By: _____ Date: _____
(Caretaking Manager)

Compactor - SU

Item	Satisfactory	Needs Repair	Out of Service	Tagged / Removed from Site	WO Requested Y / N	Repair	Replace
Emergency Shut Downs							
Gate Switch							
Button on Panel							
Rails							
Platform							
Degreaser Bottle							
Waterhose							
Housekeeping							
Keep path to fire extinguishers and exits clear of debris / obstructions							
Lights							
Motor							
Hydraulic lines							
Hoses							

Corrective Measures Required: _____
_____
_____
_____
_____
_____

Inspection Completed By: _____ Date: _____

Inspection Reviewed By: _____ Date: _____

Corrective Measures Carried Out: _____
_____
_____
_____

Completed By: _____ Date: _____

Approved By: _____ Date: _____
(Caretaking Manager)

UNIVERSITY OF LETHBRIDGE
PHYSICAL PLANT AND OPERATIONS

HEALTH & SAFETY PROGRAM

EMERGENCY RESPONSE PLANNING

University of Lethbridge

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.

Date: May 9, 2003
Revised: November 19, 2003

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 MANDITORY 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 empting (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.)

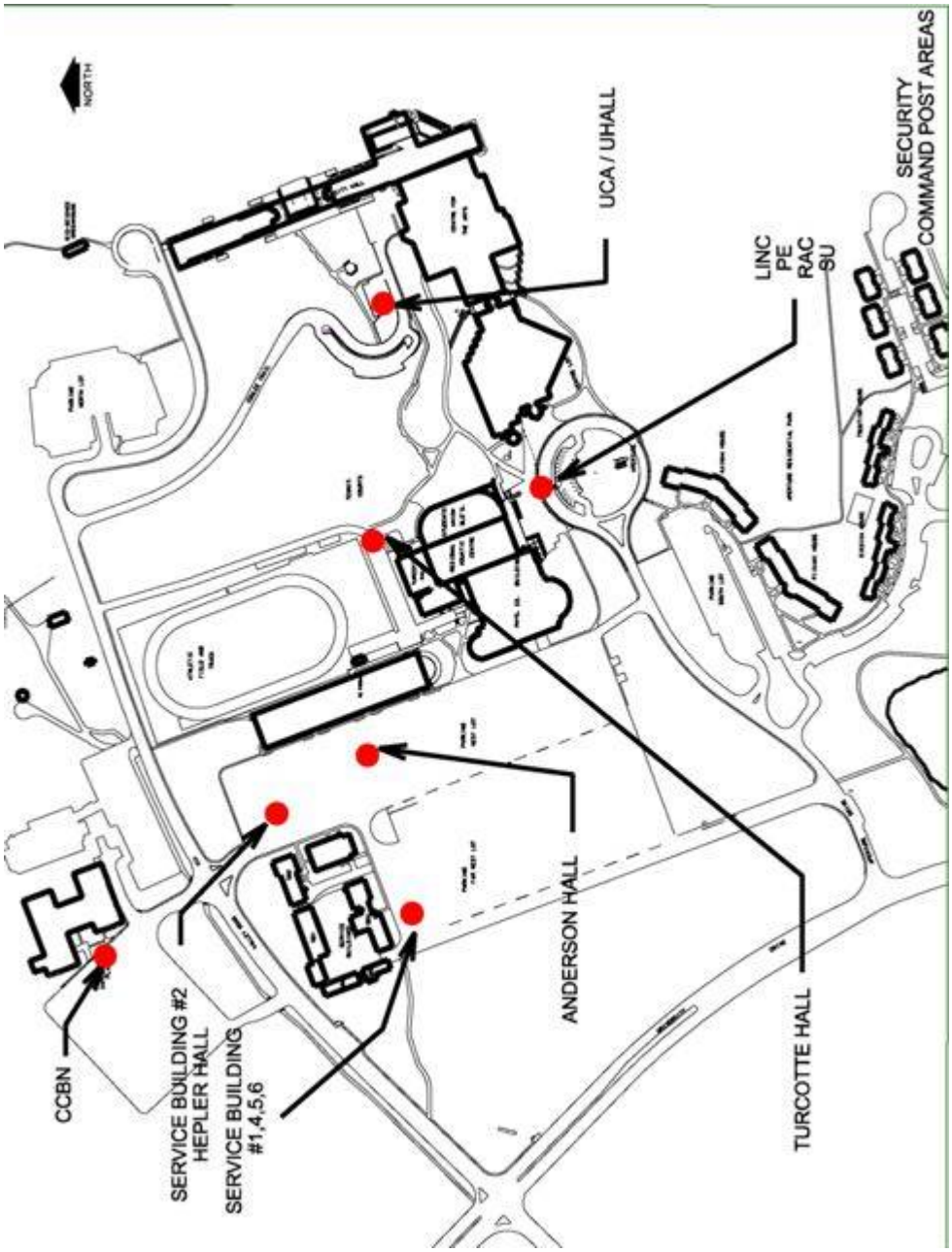
PROCEDURE FOR CUTS OR STAB WOUNDS FROM NEEEDLES

- 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.

Security – Command Post Areas



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:

Incident:

Immediate Causes:

Underlying Causes:

Corrective Action (Controls/Management System):

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.)

_____
_____
_____

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

_____
_____
_____

What were the causes of the incident?

Immediate? (Unsafe Practices/Conditions)

_____
_____
_____

Underlying? (Personal/Work Environment Factors)

_____
_____
_____

Recommended action(s) to prevent recurrence?

Short-term?

_____
_____
_____
_____

Long-term?

_____
_____
_____
_____

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

_____
_____
_____

Completed

Date: _____

Name: _____ Signature: _____

Reviewed

Date: _____

Name: _____ Signature: _____

Reviewer's Comments:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

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_2 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.

CARETAKING WORK ALONE POLICY

This is to recognize that the employee listed below has been oriented in the Work Alone Policy for Caretaking Services. The employee is aware of the Work Alone Legislation and the Caretaking Department Policy and has been provided with the necessary information to safely carry out their duties, should they be required to work alone.

_____ _____

Supervisor Date

_____ _____

Employee Date

UNIVERSITY OF LETHBRIDGE
PHYSICAL PLANT AND OPERATIONS

HEALTH & SAFETY PROGRAM

PROGRAM ADMINISTRATION

PROGRAM ADMINISTRATION OVERVIEW

MONTHLY SAFETY MEETINGS

The Caretaking Manager conducts monthly safety meetings for each of the 3 Caretaking Shifts and the Recycling Team. Although there are 4 separate meetings held the topic, content and format are the same for each one.

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 TOOLBOX MEETINGS

In addition to the Monthly meetings the Manager of Caretaking Services holds toolbox meetings with the Recycling Team each week. The meetings range from safety concerns with Recycling Demands to new equipment or trends in recycling. This is an open discussion type format is held to deal with any concerns in regards the discussed issues.

INCIDENT TRENDS

Each time an employee is involved in an 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.

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

ie.

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

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

SAFETY MEETING

TOPIC: _____

DATE: _____

TIME: _____

NAME: (PLEASE PRINT)	SIGNATURE	DEPARTMENT

Minutes: _____

Signed:

Meeting Coordinator / Department	Date Submitted

Approved by:

Doug Parker Executive Director Physical Plant & Operations	Date Approved

TOOLBOX MEETING
CARETAKING DEPARTMENT

DATE: _____

NAME: (PLEASE PRINT) **SIGNATURE**

_____ _____ _____
_____ _____ _____
_____ _____ _____

SAFETY ITEMS DISCUSSED: _____
_____
_____
_____
_____
_____
_____
_____
_____
_____

EMPLOYEE SUGGESTIONS: _____
_____
_____
_____

CORRECTIVE ACTION: _____
_____
_____
_____

Reviewed By:

_____ _____
Team Foreman Date Reviewed

Comments: _____
_____
_____
_____

Forwarded To: _____ Date: _____
Action Required:_____
_____
_____
_____
_____

UNIVERSITY OF LETHBRIDGE
PHYSICAL PLANT AND OPERATIONS

HEALTH & SAFETY PROGRAM

SAFE WORK PRACTICES

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

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.

FLAMMABLE & TOXIC MATERIALS

Flammable Products

Certain products in use may contain solvent components such as xylene or propanol. These solvents have relatively low flash points and will ignite when exposed to sparks or open flames. The following guidelines must be observed:

- No smoking in or near the work area. Post "No Smoking" signs throughout the work area.
- Type ABC fire extinguishers should be located in easily accessible stations in the work area.
- No open flames or welding torches should be in the work area.
- Enclosed areas create explosive conditions. Use of explosion-proof fans to disperse the vapors, and bring in fresh air.
- Ascertain ventilation requirements prior to using hazardous materials.

Toxic Materials

Toxic or poisonous materials can be transmitted either by the inhalation of vapors, or contact with bare skin. Caution should be exercised when handling uncurled material or solvents.

- The specific vapor respirator required must be determined prior to starting.
- Wear goggles when mixing, or applying.
- Wear gloves, which extend 3/4 upwards the length of employee's forearm. Wear rubber gloves when washing tools with solvent.
- Wear long sleeve shirts and pants.
- Wear protective foot coverings, either rubber boots, or a plastic liner inside shoes.

FORKLIFT OPERATION

- Walk around the-forklift and check the following:
    - Proper spacing of forks for material
    - Fluid levels and fuel supply
    - Wheels/ tires for condition
    - Obstructions around the forklift
- Check back up alarm operation
- Check lights:
    - Headlights
    - Taillights
    - Revolving lights
- Start the forklift and let it warm up.
- Checks to see if all lights and gauges are operational on the control panel,
- Check operation of all moving parts.
    - Foot, parking and deadman seat brake
    - Clutch and gear shift
    - Steering
- Lift and tilt mechanism
- Check the working area for obstructions and other personnel.
- Move material around in a safe manner.

NOTE: Do not exceed the lifting capacity of the forklift at any time.

HANTAVIRUS

What is it?

- A virus carried by deer mice.
- The virus is in their urine and droppings.

How do people get Hantavirus?

- People may be infected- by contact with mouse droppings when cleaning out garages, sheds and cabins where mice lived over the winter.
- Sweeping or vacuuming droppings, releases the virus into the air and it is breathed in.
- It is not spread from person to person.

Do other animals carry Hantavirus?

- The only known carrier is the deer mouse (reddish-brown or grey with white fur on the belly and feet.)
- Other rodents may carry the virus so all rodents should be treated as carriers.
- Hantavirus has not caused illness in pets or spread from pets to people.

What signs and symptoms can you have?

- Early symptoms are flu-like: fever, body aches, chills and headache.
- They occur 1-2 weeks after being infected.
- Breathing problems leading to hospitalization occur 2-15 days after early symptoms.

Who is at risk for Hantavirus?

- Only a small percent of the people who come in ontact with the virus get ill.
- Most cases have occurred in people with close contact to mice or mice droppings.
- Most cases occur in rural areas.

How do you prevent Hantavirus?

Keep mice / rodents away by:

- Storing food and pet food in metal or plastic containers.
- Sealing holes(anything over 6mm or ¼ in) with steel wool or cement to prevent entry.
- Hauling away trash, old vehicles, old tires where mice / rodents can nest
- Storing garbage in containers with tight fitting lids.
- When entering a building where mice / rodents may live wear a mask so as not to breathe in the dust in the building.
- If using traps or poisons to control mice beware of the danger to children and pets.
- Wild mice should not be kept as pets.

When cleaning mice/rodent infested areas:

- Air out the area for 30 minutes first.
- Wear rubber or plastic gloves.

- Also wear a mask so dust is not inhaled.
- When cleaning heavily contaminated areas a HEPA mask may be purchased at safety supply stores.
- Soak dead rodents, nests, droppings and contaminated items in a 1 to 10 bleach / water solution.
- Pick up debris and place in double plastic bags.
- Do not sweep or vacuum.
- When clean-up is done seal bags, and place with regular garbage for routine pickup. After bags have been removed mop floors with soap, water and then a bleach / water solution.
- Dirt floors can be sprayed with a 5 to 10 bleach / water solution.
- For heavily infested areas contact a pest control service or a public health inspector for detailed information.

After clean up:

- Wash hands well.
- Wash gloves in a 1 to 10 bleach / water solution or dispose of.
- Used traps should be rinsed with a 1 to 50 bleach solution before being reused.

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.

HAND POWERED LIFTS, ROUSTABOUTS, AND HYJACKS

Winch or jacking devices are great for moving heavy materials or apparatus - they are safe too if the following points are observed:

- Check the equipment for defects before starting the work. Make sure that safeties, catches, brakes and hydraulic hoses are in working order and that there are no frayed cables or loose gears, cogs, or ratchets. Report all mechanical or hydraulic problems to your supervisor immediately - do not use a malfunctioning device.

- Familiarize yourself with the manufacturer's special instructions for safety. Review and check out emergency stopping procedures and load lowering requirements.

- Plan what you intend to accomplish in advance. Before you move a loaded lifting device that has casters or wheels for mobility, make sure the load is secure and the lifting mechanism is set at the lowest operating position. Only move loads over level and even surfaces.

- Do not exceed the device's capacity for lifting loads, heights and travelling limits. Block wheels and casters before lifting.

- Check the attachment points of the tackle blocks and make sure they are strong enough to support the load.

- Position the lift directly under the final position to where equipment or materials is to be raised.

- Never lift the load where it may come in contact with electric power lines, conduit or bus duct unless the electric service has been locked out.

- Check for balance and load distribution, to prevent the lift from tipping or overturning.

- Make sure that only properly instructed personnel operate the lifting device.

- Never indulge in horseplay or practical jokes with power lifting equipment.

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.

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.

RATTLESNAKE REPORTING CALL LIST	
Contact	***Phone/Cell Number***
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 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 PROPANE

Since propane is heavier than air and invisible, it is a special concern when it is used on the job-site.

All installations and use of this product on the job-site must comply with the Government Legislation set out for its safe use.

Suppliers delivering the product or setting up the equipment at the site must be part of the safe work practice.

- Nylon slings must be used in a "choker" fashion when loading, off-loading or lifting propane tanks.
- "Lifting lugs" provided on tanks are not to be used. Slings are to be wrapped around the shell of the tank.
- Tank valves and regulators are to be removed from the tank prior to any movement of the tank.
- Crane hooks shall be equipped with a "safety latch".
- All trucks, cranes or equipment used to handle propane tanks must be equipped with a fire extinguisher appropriate for the size and type of tank being handled.
- Except in an emergency, any movement or repositioning of tanks, shall be performed by a competent worker.
- Tanks are not to be heated to increase flow.
- When in use, propane bottles are to be securely held in an upright position.
- Tanks are not to be hooked up and used without proper regulators.

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 <u>not</u> 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

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 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. lips.) 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.

You 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)

Exposure Level (dBA)	Duration
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

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

TABLE3
PERMISSIBLE BACKGROUND NOISE CONDITIONS
FOR AUDIOMETREC TESTING

Octave Band Centre Frequency	Maximum Levels (dBA)
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 Heath Canada website located at www.hc-sc.gc.ca.