

## Table of Contents

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|   |    |
|---|----|
| ELEMENT #1 - ORGANIZATIONAL COMMITMENT                              | 1  |
| Organizational Commitment - Overview                                | 2  |
| ELEMENT #2 - HAZARD IDENTIFICATION                                  | 4  |
| Hazard Identification - Overview                                    | 5  |
| Hazard-Identification - Paint Signs                                 | 8  |
| HAZARD ASSESSMENT FORMWall Painting                                 | 10 |
| HAZARD ASSESSMENT FORM.docInterior Painting                         | 12 |
| HAZARD ASSESSMENT FORM.docxDrywall repair                           | 14 |
| HAZARD ASSESSMENT FORM.docxEquipment Painting                       | 15 |
| HAZARD ASSESSMENT FORMDriving                                       | 17 |
| HAZARD ASSESSMENT FORM.docFloorrefinishing                          | 19 |
| HAZARD ASSESSMENT FORMStorage of Flammables                         | 20 |
| HAZARD ASSESSMENT FORM.docxFurniture Refinishing                    | 22 |
| HAZARD ASSESSMENT FORMExterior Painting                             | 24 |
| HAZARD ASSESSMENT FORM.docxFloor coatings                           | 26 |
| HAZARD ASSESSMENT FORM Sign Creation                                | 28 |
| ELEMENT #3 - HAZARD CONTROL   | 30 |
| Hazard Control - Overview-Safe Work Procedures                      | 31 |
| Hazard Control - Airless Sprayer                                    | 32 |
| Hazard Control - Furniture Finishing                                | 33 |
| Hazard Control - Painting   | 34 |
| Hazard Control - Patching   | 36 |
| Hazard Control - Sign Hanging                                       | 37 |
| Hazard Control - Sign Printing                                      | 39 |
| Hazard Control - Wood-Metal-Plastic-Cutting                         | 40 |
| ELEMENT #4 - ORIENTATION & TRAINING                                 | 41 |
| Orientation & TrainingEmployee Training Overview- Paint & Sign Shop | 42 |
| Orientation & TrainingOrientation-Building Maintenance              | 43 |
| Orientation & TrainingTraining Matrix - Paint & Sign Shop           | 48 |

|   |    |
|---|----|
| ELEMENT #5 - FORMAL INSPECTIONS                             | 52 |
| Formal Inspections - Inspections-Building Maintenance       | 53 |
| Formal Inspections - Out-of-Service Request                 | 55 |
| ELEMENT #6 - EMERGENCY RESPONSE PROCEDURES                  | 56 |
| Emergency - Call-out Procedures                             | 57 |
| Emergency - Chemical Spills Response                        | 59 |
| Emergency - Chemical Spills BIOHAZARDS                      | 61 |
| Emergency - In Case of Fire - REACT                         | 64 |
| Emergency - Fire Prevention Duties of Fire Wardens          | 65 |
| Security Command Post Areas                                 | 66 |
| Security Command Post Areas - Parkway Service Complex       | 67 |
| ELEMENT #7 - INCIDENT INVESTIGATION                         | 68 |
| Incident Investigation - Overview                           | 69 |
| Incident Investigation - Reporting Procedures               | 70 |
| Incident Investigation - Incident Report Form               | 75 |
| Incident Investigation - Location of First Aid Kits         | 79 |
| ELEMENT #8 - POLICIES & GUIDELINES                          | 80 |
| Policies & GuidelinesWorking-Alone-Overview                 | 81 |
| Policies & GuidelinesWork-Alone-Policy-Building Maintenance | 82 |
| ELEMENT #9 - PROGRAM ADMINISTRATION                         | 84 |
| Program Administration Overview-Buildings                   | 85 |
| Program Administration LTC calculations                     | 87 |
| Program Administration Safety Meeting Sign Sheet            | 88 |
| APPENDIX 'A' - SAFE WORK PRACTICES                          | 90 |
| Safe Work - Bandsaw   | 91 |
| Safe Work - Chop Saw  | 92 |
| Safe Work - Cleaning Solvents and Flammables                | 93 |
| Safe Work - Defective Tools                                 | 94 |
| Safe Work - Disk Sander                                     | 95 |
| Safe Work - Drill Press                                     | 96 |
| Safe Work - Electrical Safety                               | 97 |

|  |     |
|--|-----|
| Safe Work - Fire Extinguishers                   | 98  |
| Safe Work - Flammable Toxic Materials            | 99  |
| Safe Work - Forklift Operation                   | 100 |
| Safe Work - Grinding                             | 101 |
| Safe Work - Housekeeping                         | 102 |
| Safe Work - Joints                               | 103 |
| Safe Work - Lifts, Roustabouts and Hyjacks       | 104 |
| Safe Work - Metal Scaffolds                      | 105 |
| Safe Work - Mobile Aerial Work Platform          | 106 |
| Safe Work - Non-Powered Hand Tools               | 108 |
| Safe Work - Portable Ladders                     | 109 |
| Safe Work - Pressure Washer                      | 110 |
| Safe Work - Proper Lifting Techniques            | 111 |
| Safe Work - Rattlesnakes                         | 112 |
| Safe Work - Step Ladders                         | 114 |
| Safe Work - Table Saw                            | 115 |
| Safe Work - Use of Compressed Air                | 116 |
| Safe Work - Use of Electrical Extension Cords    | 117 |
| Safe Work - Use of Hand Held Power Circular Saw. | 118 |
| Safe Work - Use of Portable Grinders             | 119 |
| Safe Work - Use of Power Tools                   | 120 |
| Safe Work - Vehicle Flashing Lights              | 122 |
| Safe Work - West Nile Virus                      | 123 |
| APPENDIX 'B' - PERSONAL PROTECTIVE EQUIPMENT     | 125 |
| Protective Equipment - Eye & Face Protection     | 126 |
| Protective Equipment - Fall Protection           | 128 |
| Protective Equipment - Foot Protection           | 130 |
| Protective Equipment - Head Protection           | 131 |
| Protective Equipment - Hearing Protection        | 132 |
| Protective Equipment - Noise Exposure Limits     | 133 |
| Protective Equipment - Respiratory Protection    | 134 |



UNIVERSITY OF LETHBRIDGE  
FACILITIES

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 Facilities staff are directly proportional to their operational authority and are listed below.

The Facilities 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 Facilities:

It is the responsibility of the Executive Director of Facilities 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 and Supervisors

All Superintendents, Managers and Supervisors within Facilities 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;

## ORGANIZATIONAL COMMITMENT

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- 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 Facilities 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.

UNIVERSITY OF LETHBRIDGE  
FACILITIES

HEALTH & SAFETY PROGRAM

**HAZARD IDENTIFICATION**



## **HAZARD IDENTIFICATION**

A consistent hazard evaluation process was used throughout the Facilities 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. Mould
22. Pedestrian / Vehicular Traffic
23. Bio-Hazardous Material
24. Wildlife Hazards
25. Asbestos Awareness Information

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 the Paint & Sign Shop were found to have some high risk hazards associated with them through the Risk Analysis process as mentioned.

**Conducted By:** Al Mueller  
Dan Sudo

**Date:** February 2011

#### **Furniture Finishing**

- #2 Chemical Exposure (9)
- #4 Dust / Vapours (13)
- #9 Repetitive Strain / Motion (10)
- #20 Working Alone

#### **Painting**

- #4 Dust / Vapours (10)
- #8 Eye Injury (11)
- #9 Repetitive Strain / Motion (10)
- #10 Ladder (11)
- #20 Working Alone

#### **Patching**

- #4 Dust / Vapours (14)
- Ladders (10)

#### **Signs – Construction / Printing**

- #4 Dust / Vapours (12)
- #7 Noise (13)
- #8 Eye Injury (13)
- Kick-back(table saw) (13)
- #10 Lifting (10)

#### **Sign Hanging**

- #1 Falling Objects (15)
- #7 Noise (14)
- #11 Slips / Falls (13)

### Tools:

#### **Airless Sprayer**

- #2 Chemical Exposure (13)
- #4 Dust / Vapours (13)
- #8 Eye Injury (12)
- #9 Repetitive Strain / Motion (10)
- #10 Lifting (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)

#### **Power Washer**

- #6 Electrical (11)
- #17 Fire (12)

## HAZARD ASSESSMENT FORM

|  |                               |
|--|-------------------------------|
| <b>Description of work area:</b><br><br><b>Wall Painting</b> | <b>Date: February 22/2011</b> |
|--|-------------------------------|

| # | Description of Hazard<br>(condition/circumstance) | Exposure<br>(1 –5) | Probability<br>(1 – 5) | Consequences<br>(1 – 5) | Total | Rating   | Controls<br>(EC/AC/PPE)  |
|---|---|--------------------|------------------------|-------------------------|-------|----------|--|
| 1 | Working alone                                     | 5                  | 5                      | 5                       | 15    | Serious  | A/C Working alone policy. Call work control when on roof. Carry cell phone |
| 2 | Dust  | 5                  | 3                      | 1                       | 9     | Moderate | E/C Containment ie close doors. Keep area clean.<br>PPE N95 Dust mask      |
| 3 | Ladder/Falls                                      | 5                  | 3                      | 3                       | 11    | Serious  | A/C Safety Orientation, Safe work procedures                               |
| 4 | Chemical Exposure (VOC)                           | 5                  | 1                      | 1                       | 7     | Moderate | A/C Product Selection<br>E/C Proper ventilation.                           |
| 5 | Eye Injury  | 3                  | 3                      | 2                       | 8     | Moderate | A/C Safety Training.<br>PPE Eye protection                                 |
| 6 | Repetitive Strain/Motion                          | 5                  | 2                      | 3                       | 10    | Moderate | A/C Rotate tasks, proper equipment ie roller extension                     |
| 7 | Lifting/Strain                                    | 5                  | 1                      | 3                       | 9     | Moderate | A/C Safety orientation. Use of carts where possible                        |
| 8 | Fire  | 4                  | 2                      | 4                       | 10    | Moderate | E/C Proper storage of solvents. Proper containers for disposal             |

|   |          |   |   |   |   |          |  |
|---|----------|---|---|---|---|----------|--|
| 9 | Asbestos | 3 | 1 | 4 | 8 | Moderate | E/C Containment.<br>PPE Dust Mask P100.<br>A/C New procedures<br>for UHall.<br>No Power tools. |
|---|----------|---|---|---|---|----------|--|

**Hazard Assessment performed by:**

Al Mueller/Dan Sudo \_\_\_\_\_

## HAZARD ASSESSMENT FORM

|  |  |
|--|--|
| <b>Description of work area:</b><br><br><b>Interior Painting</b> | <b>Date:</b><br><br><b>Feb 11/2011</b> |
|--|--|

| # | Description of Hazard<br>(condition/circumstance) | Exposure<br>(1 –5) | Probability<br>(1 – 5) | Consequences<br>(1 – 5) | Total | Rating | Controls<br>(EC/AC/PPE)   |
|---|---|--------------------|------------------------|-------------------------|-------|--------|---|
| 1 | Working alone                                     | 5                  | 5                      | 5                       | 15    | S      | AC Working alone policy.<br>Call work control when<br>on roof. 2 people<br>required for some high<br>VOC paints |
| 2 | Dust  | 5                  | 3                      | 1                       | 9     | M      | E/C Containment ie<br>doors, cleaning.<br>PPE P100 dust mask  |
| 3 | Ladder  | 5                  | 3                      | 3                       | 11    | S      | A/C Safety orientation,<br>Safe work practice   |
| 4 | VOC Exposure                                      | 5                  | 1                      | 1                       | 7     | M      | A/C Product selection   |
| 5 | Eye Injury  | 3                  | 3                      | 2                       | 8     | M      | A/C Safety orientation<br>PPE Eye Protection  |
| 6 | Rep strain/Motion                                 | 5                  | 2                      | 3                       | 10    | M      | A/C Safe work procedure<br>E/C Proper equipment –<br>extensions'  |
| 7 | Lifting   | 5                  | 1                      | 3                       | 9     | M      | A/C Safety Orientation,<br>safe work procedure<br>E/C Use carts where<br>possible                               |
| 8 | Fire  | 4                  | 2                      | 4                       | 10    | M      | E/C Proper containers<br>for storage and disposal<br>of mineral or solvents.                                    |
| 9 | Work site Storage                                 | 5                  | 1                      | 3                       | 9     | M      | E/C Product and   |



|    |          |   |   |   |   |   |  |
|----|----------|---|---|---|---|---|--|
|    |          |   |   |   |   |   | equipment to be stored safely  |
| 10 | Asbestos | 3 | 1 | 4 | 8 | M | A/C Any work done in Uhall new set of procedures. No power tools, and containment barriers in place. |

**Hazard Assessment performed by:**

Alfred Mueller/Dan Sudo

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## HAZARD ASSESSMENT FORM

|   |                                    |
|---|------------------------------------|
| <b>Description of work area:</b><br><b>Drywall Repair</b> | <b>Date:</b><br><b>Feb 22/2011</b> |
|---|------------------------------------|

| # | Description of Hazard<br>(condition/circumstance) | Exposure<br>(1 –5) | Probability<br>(1 – 5) | Consequences<br>(1 – 5) | Total | Rating | Controls<br>(EC/AC/PPE)   |
|---|---|--------------------|------------------------|-------------------------|-------|--------|---|
| 1 | Working alone                                     | 5                  | 5                      | 5                       | 15    | S      | A/C Working alone policy. Call work control when on roof. Carry cell phone  |
| 2 | Dust  | 5                  | 3                      | 2                       | 10    | M      | E/C Containment ie close doors. Keep area clean.<br>PPE N95   |
| 3 | Ladders   | 5                  | 3                      | 2                       | 10    | M      | A/C Safety Orientation on Ladders, Safe work procedures   |
| 4 | Electrical  | 3                  | 3                      | 3                       | 9     | M      | A/C Training & Awareness.<br>E/C Use of proper length blades.   |
| 5 | Eye Injury  | 5                  | 2                      | 2                       | 9     | M      | A/C Safety Training.<br>PPE Eye protection  |
| 6 | Lifting- Strains & sprains                        | 3                  | 2                      | 2                       | 7     | M      | A/C Orientation, Safe work procedure.   |
| 7 | Asbestos (UHall only)                             | 4                  | 1                      | 4                       | 9     | M      | A/C Asbestos link on web shared drive.Facilities\shared\capitalprojects\asbestos\asbestos inventorybybuilding. Use of contractor to remove any and all drywall containing asbestos.<br>Application of drywall over top of drywall containing asbestos |

**Hazard Assessment performed by:**

Al Mueller/Dan Sudo \_\_\_\_\_

## HAZARD ASSESSMENT FORM

|   |                                    |
|---|------------------------------------|
| <b>Description of work area:</b><br><b>Equipment Painting</b> | <b>Date:</b><br><b>Feb 22/2011</b> |
|---|------------------------------------|

| # | Description of Hazard<br>(condition/circumstance) | Exposure<br>(1 –5) | Probability<br>(1 – 5) | Consequences<br>(1 – 5) | Total | Rating | Controls<br>(EC/AC/PPE)   |
|---|---|--------------------|------------------------|-------------------------|-------|--------|---|
| 1 | Working alone                                     | 5                  | 5                      | 5                       | 15    | S      | A/C Working alone policy. Call work control when on roof. Carry cell phone  |
| 2 | Dust/Metal filings                                | 5                  | 5                      | 3                       | 13    | H      | PPE Dust Mask N95, Eye Protection.<br>E/C Spray booth ventilation   |
| 3 | Ladder  | 3                  | 2                      | 3                       | 8     | M      | A/C Safety Orientation<br>E/C Tie off ladder to equipment when necessary  |
| 4 | Chemical exposure (VOC)                           | 4                  | 3                      | 2                       | 9     | M      | PPE Full respirator, Chemical gloves.<br>E/C Use of spray booth ventilation<br>A/C Use of low VOC products where possible |
| 5 | Electrical  | 3                  | 2                      | 2                       | 7     | M      | E/C Make sure equipment is off or locked out  |
| 6 | Noise   | 3                  | 2                      | 2                       | 7     | M      | PPE Hearing protection<br>When power sanding  |
| 7 | Eye Injury  | 3                  | 2                      | 2                       | 7     | M      | PPE Eye Protection  |

|    |                    |   |   |   |   |   |   |
|----|--------------------|---|---|---|---|---|---|
|    |                    |   |   |   |   |   | when sanding  |
| 8  | Repetitive Strain  | 2 | 1 | 1 | 4 | L | A/C Rotation of workers   |
| 9  | Lifting            | 3 | 3 | 3 | 9 | M | A/C Proper orientation,<br>Use of carts where<br>necessary. Use of chains<br>and harnesses for<br>hanging equipment                           |
| 10 | Fire               | 2 | 2 | 2 | 6 | M | E/C Mask off electrical<br>outlets and wiring<br>harnesses. Use of proper<br>ventilation for product<br>flashpoint. Air monitoring<br>device. |
| 11 | Exposure Heat/Cold | 3 | 2 | 1 | 6 | M | A/C Rotation of workers,<br>use of fans when<br>necessary   |
| 12 | Falling Objects    | 1 | 2 | 3 | 6 | M | E/C Visual inspection<br>Inspection of equipment,<br>ie Chains for hanging<br>furniture   |
| 13 | Pinch Points       | 3 | 2 | 2 | 7 | M | E/C Lock out equipment.<br>A/C Safe work lifting<br>procedure   |

**Hazard Assessment performed by:**

Al Mueller/Dan Sudo \_\_\_\_\_

## HAZARD ASSESSMENT FORM

|  |                                    |
|--|------------------------------------|
| <b>Description of work area:</b><br><b>Driving</b> | <b>Date:</b><br><b>Mar 18/2011</b> |
|--|------------------------------------|

| # | Description of Hazard<br>(condition/circumstance) | Exposure<br>(1 –5) | Probability<br>(1 – 5) | Consequences<br>(1 – 5) | Total | Rating | Controls<br>(EC/AC/PPE)  |
|---|---|--------------------|------------------------|-------------------------|-------|--------|--|
| 1 | Working alone                                     | 5                  | 5                      | 5                       | 15    | S      | A/C Working alone policy.<br>Call work control when on roof. Carry cell phone  |
| 2 | Property Damage                                   | 5                  | 2                      | 3                       | 10    | M      | PPE Seatbelts<br>A/C Drivers abstract.<br>Mission possible, Experience<br>E/C Vehicle maintenance<br>ie Wipers, brakes etc.<br>Monthly inspections.<br>Insure good visibility ie<br>scrape frost.  |
| 3 | Bodily Injury                                     | 5                  | 2                      | 5                       | 12    | S      | PPE Seatbelts<br>A/C Drivers abstract.<br>Mission possible,<br>experience<br>E/C Vehicle maintenance<br>ie Wipers, brakes etc.<br>Monthly inspections<br>insure good visibility ie<br>scrape frost |

|   |                     |   |   |   |    |   |   |
|---|---------------------|---|---|---|----|---|---|
| 4 | Risk to Pedestrians | 5 | 2 | 5 | 12 | S | A/C Drivers abstract, Mission possible, experience Be aware of pedestrians walking in unmarked places ie between vehicles |
| 5 | Unsecure loads      | 5 | 2 | 3 | 10 | M | A/C Use of proper tie downs, to the bed of truck  |

**Hazard Assessment performed by:**

Al Mueller/Dan Sudo \_\_\_\_\_

## HAZARD ASSESSMENT FORM

|  |                                   |
|--|-----------------------------------|
| <b>Description of work area:</b><br><br><b>Floor Refinishing</b> | <b>Date:</b><br><br>April 26/2011 |
|--|-----------------------------------|

| # | Description of Hazard<br>(condition/circumstance) | Exposure<br>(1 –5) | Probability<br>(1 – 5) | Consequences<br>(1 – 5) | Total | Rating | Controls<br>(EC/AC/PPE)   |
|---|---|--------------------|------------------------|-------------------------|-------|--------|---|
| 1 | Working alone                                     | 5                  | 5                      | 5                       | 15    | S      | A/C U of L Working Alone Policy, 2 way radios                                     |
| 2 | Strains/Sprains                                   | 2                  | 2                      | 3                       | 7     | M      | A/C Training, rotate task/workers   |
| 3 | Slips/Falls                                       | 2                  | 2                      | 3                       | 7     | M      | A/C Training<br>E/C Signage and barricades<br>PPE Proper footwear, non slip soles |
| 4 | Vapors  | 2                  | 2                      | 3                       | 7     | M      | A/C Training<br>E/C Proper ventilation, and fans                                  |
| 5 | Electrical  | 2                  | 2                      | 3                       | 7     | M      | A/C Training<br>E/C Use of GFI<br>PPE Rubber boots                                |
| 6 | Chemical splashing                                | 2                  | 2                      | 3                       | 7     | M      | A/C Training<br>E/C Gloves, eye protection  |

**Hazard Assessment performed by:**

Yvette Thielen, Robin Sprado, Stella Baah, Noreen Papp, Virginia Trotter, Judy Jaeger \_\_\_\_\_

### HAZARD ASSESSMENT FORM

|   |                                    |
|---|------------------------------------|
| <b>Description of work area:</b><br><b>Storage of Flammable Materials</b> | <b>Date:</b><br><b>Mar 18/2011</b> |
|---|------------------------------------|

| # | Description of Hazard<br>(condition/circumstance) | Exposure<br>(1 –5) | Probability<br>(1 – 5) | Consequences<br>(1 – 5) | Total | Rating | Controls<br>(EC/AC/PPE)   |
|---|---|--------------------|------------------------|-------------------------|-------|--------|---|
| 1 | Working alone                                     | 5                  | 5                      | 5                       | 15    | S      | A/C Working alone policy. Call work control when on roof. Carry cell phone  |
| 2 | Fire  | 5                  | 2                      | 3                       | 10    | M      | E/C Use of proper metal chemical storage cabinets.<br>Storage of chemical soaked rags in proper metal containers, rags must be laid out to avoid spontaneous combustion. Proper ventilation<br>A/C MSDS sheets to know flashpoints of products stored. Store product away from heat to avoid disruptive pressure. |



|   |        |   |   |   |   |   |   |
|---|--------|---|---|---|---|---|---|
| 3 | Vapors | 4 | 2 | 2 | 8 | M | E/C Use of proper storage cabinets Do not store next to heat. Proper ventilation. |
|---|--------|---|---|---|---|---|---|

Hazard Assessment performed by:

***Al Mueller/Dan Sudo***

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## HAZARD ASSESSMENT FORM

|  |                                    |
|--|------------------------------------|
| <b>Description of work area:</b><br><br><b>Furniture Refinishing</b> | <b>Date:</b><br><b>Feb 23/2011</b> |
|--|------------------------------------|

| # | Description of Hazard<br>(condition/circumstance) | Exposure<br>(1 –5) | Probability<br>(1 – 5) | Consequences<br>(1 – 5) | Total | Rating | Controls<br>(EC/AC/PPE)  |
|---|---|--------------------|------------------------|-------------------------|-------|--------|--|
| 1 | Working alone                                     | 5                  | 5                      | 5                       | 15    | S      | A/C Working alone policy. Call work control when on roof. Carry cell phone                                 |
| 2 | Dust/Metal Filings                                | 5                  | 5                      | 3                       | 13    | H      | PPE Dust Mask N95, Eye Protection.<br>E/C Spray booth ventilation  |
| 3 | Chemical Exposure (VOC)                           | 4                  | 3                      | 2                       | 9     | M      | PPE Full respirator, Chemical gloves.<br>E/C Use of spray booth ventilation                                |
| 4 | Noise   | 3                  | 2                      | 2                       | 7     | M      | PPE Hearing protection<br>When power sanding   |
| 5 | Eye Injury  | 3                  | 2                      | 2                       | 7     | M      | PPE Eye Protection<br>when sanding   |
| 6 | Repetitive Strain                                 | 2                  | 1                      | 1                       | 4     | L      | A/C Rotation of workers  |
| 7 | Lifting   | 3                  | 3                      | 3                       | 9     | M      | A/C Proper orientation,<br>Use of carts where necessary. Use of chains and harnesses for hanging furniture |

|    |                    |   |   |   |   |   |  |
|----|--------------------|---|---|---|---|---|--|
| 8  | Fire               | 2 | 2 | 2 | 6 | M | E/C Mask off electrical outlets and wiring harnesses. Use of proper ventilation for product flashpoint. Air monitoring device. |
| 9  | Exposure Heat/Cold | 3 | 2 | 1 | 6 | M | A/C Rotation of workers, use of fans when necessary  |
| 10 | Falling objects    | 1 | 2 | 3 | 6 | M | E/C Visual inspection<br>Inspection of equipment, ie Chains for hanging furniture  |
| 11 | Pinch Points       | 3 | 2 | 2 | 7 | M | E/C Lock out equipment.<br>A/C Safe work lifting procedure   |

**Hazard Assessment performed by:**

Al Mueller/Dan Sudo \_\_\_\_\_

## HAZARD ASSESSMENT FORM

|  |   |
|--|---|
| <b>Description of work area:</b><br><b>Painting Exterior</b> | <b>Date:</b><br><b>February 11/2011</b> |
|--|---|

| # | Description of Hazard<br>(condition/circumstance) | Exposure<br>(1 –5) | Probability<br>(1 – 5) | Consequences<br>(1 – 5) | Total | Rating | Controls<br>(EC/AC/PPE)  |
|---|---|--------------------|------------------------|-------------------------|-------|--------|--|
| 1 | Working alone                                     | 5                  | 5                      | 5                       | 15    | S      | A/C Working alone policy.<br>Call work control when on<br>roof. Carry cell phone |
| 2 | Dust  | 5                  | 3                      | 1                       | 9     | M      | PPE Dust Mask N95  |
| 3 | Ladder/Falling                                    | 5                  | 4                      | 5                       | 14    | S      | A/C Safety Orientation<br>Safe Work practices                                    |
| 4 | Chemical Exposure(VOC)                            | 5                  | 1                      | 1                       | 7     | M      | A/C Product Selection  |
| 5 | Electrical  | 5                  | 1                      | 3                       | 8     | M      | A/C consult with electrical<br>dept if working around<br>electrical equipment    |
| 6 | Eye Injury  | 3                  | 2                      | 2                       | 7     | M      | A/C work weather<br>permitting<br>PPE Use eye protection<br>while scraping       |
| 7 | Repetitive Strain                                 | 3                  | 2                      | 1                       | 6     | M      | A/C Training-use proper<br>equipment<br>Rotate tasks/workers                     |
| 8 | Lifting/Strain                                    | 4                  | 2                      | 2                       | 8     | M      | A/C Safety orientation,<br>use carts where possible                              |
| 9 | Fire  | 2                  | 1                      | 2                       | 5     | L      | A/C Proper storage of<br>product   |

|    |                    |   |   |   |   |   |  |
|----|--------------------|---|---|---|---|---|--|
| 10 | Exposure Heat/Cold | 3 | 2 | 2 | 7 | M | A/C Work weather<br>permitting.<br>PPE<br>Sunglasses/sunscreen |
|----|--------------------|---|---|---|---|---|--|

**Hazard Assessment performed by:**

Al Mueller/ Dan Sudo \_\_\_\_\_

### HAZARD ASSESSMENT FORM

|   |                                   |
|---|-----------------------------------|
| <b>Description of work area:</b><br><b>Floor Coatings</b> | <b>Date:</b><br><b>Mar 2/2011</b> |
|---|-----------------------------------|

| # | Description of Hazard<br>(condition/circumstance) | Exposure<br>(1 –5) | Probability<br>(1 – 5) | Consequences<br>(1 – 5) | Total | Rating | Controls<br>(EC/AC/PPE)   |
|---|---|--------------------|------------------------|-------------------------|-------|--------|---|
| 1 | Working alone                                     | 5                  | 5                      | 5                       | 15    | S      | A/C Working alone policy. Call work control when on roof. Carry cell phone  |
| 2 | Dust  | 2                  | 1                      | 2                       | 5     | L      | E/C Containment, close doors. Keep area clean.<br>PPE N95 Dust mask   |
| 3 | Chemical Exposure (VOC)                           | 2                  | 3                      | 2                       | 7     | M      | A/C Product selection.<br>MSDS sheets to determine proper respirator.<br>E/C Proper ventilation, signage on doors |
| 4 | Electrical  | 3                  | 2                      | 2                       | 7     | M      | E/C Mask off power sources  |
| 5 | Noise   | 2                  | 2                      | 1                       | 5     | L      | PPE Hearing protection when using prepping equipment  |
| 6 | Eye Injury  | 2                  | 2                      | 3                       | 7     | M      | PPE Eye protection  |

|   |                   |   |   |   |   |   |  |
|---|-------------------|---|---|---|---|---|--|
| 7 | Repetitive Strain | 2 | 1 | 2 | 5 | L | A/C Rotate workers/tasks                               |
| 8 | Lifting           | 2 | 1 | 2 | 5 | L | A/C Safety orientation.<br>Use of carts where possible |
| 9 | Fire              | 2 | 2 | 5 | 9 | M | A/C MSDS sheets for product flash points               |

**Hazard Assessment performed by:**

Al Mueller/Dan Sudo \_\_\_\_\_

## HAZARD ASSESSMENT FORM

|  |                                 |
|--|---------------------------------|
| <b>Description of work area:</b><br><br><b>Sign Creation</b> | <b>Date:</b><br><br>Feb 24/2011 |
|--|---------------------------------|

| # | Description of Hazard<br>(condition/circumstance) | Exposure<br>(1 –5) | Probability<br>(1 – 5) | Consequences<br>(1 – 5) | Total | Rating | Controls<br>(EC/AC/PPE)  |
|---|---|--------------------|------------------------|-------------------------|-------|--------|--|
| 1 | Working alone                                     | 5                  | 5                      | 5                       | 15    | S      | A/C Working alone policy<br>Contact work control if<br>working on roof alone                                     |
| 2 | Dust(cutting or sanding<br>product)               | 5                  | 2                      | 2                       | 9     | M      | PPE-Dust mask- P100,<br>face shield<br>A/C Training, safe work<br>procedures(see 1)                              |
| 3 | Lacerations (cutting signs)                       | 5                  | 3                      | 3                       | 10    | M      | E/C Saw guard, push<br>stick<br>A/C Training safe work<br>procedures(see 1)                                      |
| 4 | Noise   | 5                  | 4                      | 4                       | 13    | H      | PPE ear plugs or ear<br>muffs. Isolate sound ie<br>close doors.<br>A/C training, safe work<br>procedures (see 1) |
| 5 | Eye injury  | 5                  | 4                      | 4                       | 13    | H      | PPE face shield<br>A/C training safe work<br>procedures (see1)   |
| 6 | Kick-back(table saw etc)                          | 5                  | 3                      | 3                       | 11    | H      | A/C training – proper<br>blade selection safe work<br>procedure (see 1)<br>E/C Safety guard                      |
| 7 | Lifting (back strain)                             | 5                  | 2                      | 3                       | 10    | H      | A/C Training- proper   |



|   |                   |   |   |   |   |   |   |
|---|-------------------|---|---|---|---|---|---|
|   |                   |   |   |   |   |   | lifting techniques 2<br>people when required<br>Use of carts when<br>necessary        |
| 8 | Vapors            | 3 | 2 | 4 | 9 | M | PPE Use of half mask<br>respirators with organic<br>filters<br>E/C proper ventilation |
| 9 | Repetitive strain | 5 | 2 | 2 | 9 | M | E/C use anti fatigue mats<br>when weeding vinyl<br>Take regular breaks                |

(1) Safe work procedures for Table saw, band saw, ,stationary sander, circular saws, Skill saw

**Hazard Assessment performed by:**

Alfred Mueller/Dan Sudo \_\_\_\_\_

UNIVERSITY OF LETHBRIDGE  
FACILITIES

HEALTH & SAFETY PROGRAM

**HAZARD CONTROL**

### ***SAFE WORK PROCEDURES OVERVIEW***

Throughout Facilities, 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.

## **AIRLESS SPRAYER**

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

- Use of Airless Sprayer for painting.

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

- On Demand.

### **HAZARDS IDENTIFIED:**

#2 – Chemical Exposure  
#4 – Dust / Vapours  
#8 – Eye Injury  
#9 – Repetitive Strain / Motion  
#10 – Lifting

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

- Respiratory Protection
- Eye Protection
- Disposable Coveralls
- Rubber Gloves

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

### **SAFE WORK PROCEDURE:**

- Visually inspect area for possible hazards.
- The operation of the Airless Sprayer requires two people.
- Refer to Safe Work Practices on “**Proper Lifting Techniques**” as found in Appendix ‘A’.
- Switch off duties between workers at appropriate intervals in order to avoid personal injuries due to repetitive strain / motion.
- Refer to MSDS and WHMIS labels for any necessary precautions to take and specific PPE needed.
- Refer to Safe Work Practice for “**Cleaning Solvents and Flammables**” as found in Appendix ‘A’.
- Refer to Safe Work Practice for “**Flammable and Toxic Materials**” as found in Appendix ‘A’.
- Ensure surface is cleaned and sanded prior to painting.
- Refer to Safe Work Practices for “**Use of Electrical Extension Cords**” as found in Appendix ‘A’.
- Refer to Safe Work Practices for “**Electrical Safety**” as found in Appendix ‘A’.
- Refer to and follow Operator’s Manual for the Airless Sprayer.

## ***FURNITURE FINISHING***

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

- Applying finishing coats to newly constructed office furniture and other wood items made by the Carpenters.

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

- On demand.

### **HAZARDS IDENTIFIED:**

- #2 – Chemical Exposure
- #4 – Dust / Vapours
- #8 – Eye Injury
- #9 – Repetitive Strain / Motion

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

- Full Face Respirator
- Eye Protection
- Rubber Gloves
- Disposable Coveralls

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

Conventional Sprayer  
Air Sander  
Brushes / Rollers  
Tack Cloth

### **SAFE WORK PROCEDURE:**

- Visually inspect area for possible hazards.
- Dust off newly constructed wood item with Air Compressor prior to commencing work.
- Refer to Safe Work Practice for “**Use of Compressed Air**” as found in Appendix ‘A’.
- Seal the wood using designated product.
- Refer to a follow product labels and any MSDS available for any required personal protective equipment and safety precautions necessary.
- Use Air Sander to smooth rough edges and surfaces after sealant has dried.
- Dust off using Air Compressor.
- Wipe down using tack cloth to remove any debris left by compressed air.
- Apply 2 coats of finish, allowing adequate time between coats for finish to properly dry.

## ***PAINTING***

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

- Painting of various items and rooms throughout campus.

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

- Daily.

### **HAZARDS IDENTIFIED:**

#2 – Chemical Exposure  
#4 – Dust / Vapours  
#8 – Eye Injury  
#9 – Repetitive Strain / Motion

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

- Varies with Product

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

Drop Sheets  
Pans / Rollers / Brushes  
Airless Sprayer  
Ladder

### **SAFE WORK PROCEDURE:**

- Visually inspect area for possible hazards.
- Refer to MSDS and WHMIS labels for any necessary precautions to take and specific PPE needed.
- Refer to Safe Work Practice for “**Cleaning Solvents and Flammables**” as found in Appendix ‘A’.
- Refer to Safe Work Practice for “**Flammable and Toxic Materials**” as found in Appendix ‘A’.
- Ensure proper ventilation is supplied to area prior to commencing.
- Ensure surface is cleaned and sanded prior to painting.
- Refer to Safe Work Procedure for “**Patching**” as found in this section.
- Place drop cloths tight to baseboards.
- Refer to Safe Work Practices for “**Step Ladders**” and “**Portable Ladders**” as found in Appendix ‘A’.
- Refer to Safe Work Practices for “**Metal Scaffolds**” as found in Appendix ‘A’.
- Refer to Safe Work Practices for “**Use of Electrical Extension Cords**” as found in Appendix ‘A’.
- Refer to Safe Work Practices for “**Electrical Safety**” as found in Appendix ‘A’.

**SAFE WORK PROCEDURE (cont.):**

**Painting on New Drywall**

- Prime drywall and let dry.
- Lightly sand with 120 grit sandpaper
- Apply 2 coats of finish allowing adequate time in between coats for drying.

**Painting Newly Constructed Items**

- For painting of office furniture, display cases, bookcases, cabinets, podiums etc. constructed by the University of Lethbridge Carpenters, finish according to work order.

**Painting of Metal Items**

- For painting of welded projects constructed by the University of Lethbridge Welders, sand, prime, and paint according to work order.
- Depending on the amount of rusting, sand blasting may be necessary.
- Face shield must be worn when operating sandblaster.
- Refer to Operator's Manual for safe operation of sandblaster.

**Painting Outsides of Buildings**

- If the outside of a building needs to be sandblasted, an outside contractor may be used.

**Painting Westcastle & Blairmore Locations**

- Scaffolds are to be set up for painting of Westcastle and Blairmore.
- Airless sprayer is to be used to paint outsides of buildings at these locations.
- Refer to Safe Work Procedure for "Airless Sprayer" as found in this section.

## **PATCHING**

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

- Patching of holes in wall to prepare for painting.

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

- Daily.

### **HAZARDS IDENTIFIED:**

#4 – Dust / Vapours

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

- Dust Mask

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

Pole & Hand Sanders  
Trowels  
Filler Pans / Hawk

### **SAFE WORK PROCEDURE:**

- Visually inspect area for possible hazards.
- Refer to product labels for any necessary precautions to take.
- Add water to Filler to obtain desired thickness.
- Scoop mud onto hawk.
- Using trowel, fill holes with Patching Filler and smooth to blend with wall.
- Let patching dry prior to painting.
- Sand with 120 grit sandpaper.
- Apply finish to wall.
- For larger holes:
  - Cut piece out and fit with drywall.
  - Tape and apply Filler to blend with wall.
  - Apply one coat of primer and 2 coats of finish allowing adequate time between coats for product to dry.



## ***SIGN HANGING***

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

- Hanging of signs throughout campus buildings.

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

- On demand.

### **HAZARDS IDENTIFIED:**

#1 – Falling Objects

#7 – Noise

#11 – Slips / Falls

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

- Hearing Protection

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

Step Ladder

2 Way Tape, Silicone

Cordless Drill, Screws, Pliers, Bolt Cutters

Razors, Hilti Hammer Drill, Stud Finder

Isopropyl Alcohol, Rapid Remover

### **SAFE WORK PROCEDURE:**

- Visually inspect area for possible hazards.

#### **Wall Mounted Signs**

- If sign is an upgrade or change, remove old sign first.
- Using Stud Finder, check wall for position to hang sign.
- If sign is to be hung in a specific location where no stud exists, anchors must be used.
- Depending on size of sign and surface of wall, sign may be attached by double sided tape, screws, or silicone.
- If drilling into concrete, a hammer drill is used and safety glasses and hearing protection must be worn.
- If sign is too large in size or too heavy, obtain help to hold sign while anchoring to wall.
- Refer to Safe Work Practice for “**Proper Lifting Techniques**” as found in Appendix ‘A’.

#### **Ceiling Hung Signs**

- Place pylons around base of ladder to divert traffic away from work area, preventing injury to passersby due to falling objects.
- Using cordless drill, make holes in T-Bar slats (suspended ceiling).
- If hanging from a concrete beam, a Hilti Hammer Drill is used and safety glasses and hearing protection must be worn.

**SAFE WORK PROCEDURE (cont.):**

- Insert metal eye hooks
- Using bolt cutters, cut chain to length and attach to sign and eye hooks.
- Refer to Safe Work Practices for “**Use of Step Ladders**” as found in Appendix ‘A’.
- Refer to Safe Work Practices for “**Use of Power Tools**” as found in Appendix ‘A’.
- If sign is too large in size or too heavy, obtain help to hold sign while suspending from ceiling.
- Refer to Safe Work Practice for “**Proper Lifting Techniques**” as found in Appendix ‘A’.

## ***SIGN PRINTING***

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

- Design and printing of vinyl letters for campus signs.

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

- On demand.

### **HAZARDS IDENTIFIED:**

#2 – Chemical Exposure

#4 – Dust / Vapours

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

Dust Mask / Respirator

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

Utility Knife, Rulers, Tape Measure  
2 Way Tape, Transfer Tape, Masking Tape  
Vinyl Rollers, Squeegees  
Computer, Sign Cutter Machine  
Isopropyl Alcohol / Rapid Remover  
Rapid-Tac

### **SAFE WORK PROCEDURE:**

- Visually inspect area for possible hazards.
- Design sign on computer as per work order.
- Feed vinyl through cutter and send design from computer to cutter.
- Refer to instruction manual for operation of sign cutter as found in Paint / Sign Shop.
- Weed Sign.
- Apply transfer tape overtop of sign.
- Wipe sign with Isopropyl Alcohol or "Rapid Remover" to clean surface.
- Ensure Respirator Protection is worn and ventilate area when working with Isopropyl Alcohol or "Rapid Remover".
- Refer to Safe Work Practices for "**Use of Cleaning Solvents and Flammables**" as found in Appendix 'A'.
- Apply "Rapid-Tac" to the clean surface of sign.
- Refer to and follow all product labels for any necessary safety precautions.
- Apply Sign to board.
- Hang sign as per location on work order.
- Refer to Safe Work Procedure for "**Sign Hanging**" as found in this section.

## ***WOOD, METAL, PLASTIC CUTTING***

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

- Cutting of wood, metal, or plastic for various construction projects as per work order or blueprint patterns.

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

- Daily as per work orders.

### **HAZARDS IDENTIFIED:**

#4 – Dust / Vapours

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

- Varying with tools used
- Safety Glasses

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

Band Saw  
Circular Saw  
Table Saw  
Jig Saw

### **SAFE WORK PROCEDURE:**

- Visually inspect worksite for any possible hazards.
- Ensure all guards are in place and no loose clothing near equipment or power tools.
- All personal protective equipment corresponding to the tool used must be worn.
- Refer to Safe Work Practice for “**Use of Power Tools**” as found in Appendix ‘A’.
- Refer to Safe Work Practice for “**Use of Non-Powered Hand Tools**” as found in Appendix ‘A’.
- Refer to Safe Work Practice for “**Electrical Safety**” as found in Appendix ‘A’.
- Refer to Safe Work Practice for “**Use of Electrical Extension Cords**” as found in Appendix ‘A’.
- Refer to Safe Work Practice corresponding to specific carpenter shop equipment.
- Cut pieces according to work order or blueprint patterns.
- If piece is too large to hold and cut, obtain assistance.
- Refer to Safe Work Practice for “**Proper Lifting Techniques**” as found in Appendix ‘A’.

UNIVERSITY OF LETHBRIDGE  
FACILITIES

HEALTH & SAFETY PROGRAM

**ORIENTATION & TRAINING**

### **EMPLOYEE TRAINING OVERVIEW**

Building Maintenance is committed to properly training its employees to safely, and effectively perform the duties required from each employee according to their job designate.

### **ORIENTATION**

Every employee that starts with Building Maintenance, is oriented within their first week. It is during this time, that the employee is familiarized with the campus, specific department policies and procedures, and is introduced to the various people within their own department, as well as other personnel within Physical Plant that they will be dealing with in direct relation to their job.

The guideline on the following pages is used to orient the new employee. Once the orientation is complete, the last page must be signed and dated by both the new employee and the supervisor. A copy of this sheet must be kept in the employee's file as part of the Employee Training & Tracking program.

### **EMPLOYEE TRAINING & TRACKING PROGRAM**

#### *Paint & Sign Shop*

The Painters / Sign Makers when hired are trained on various job tasks that they are responsible for, as well as the safe work procedures / practices for the various shop equipment / tools that they may operate / use. In addition to job specific training, all employees within Building Maintenance are trained in various safety courses required for the conditions of their job.

The Operations Supervisor within the Building Maintenance Department conducts yearly evaluations on each employee to ensure that any problem areas that may exist for the employee are identified. Additional training can then be provided as required.

The training matrix used for tracking of employee progress can be found in this section.

### **ON-GOING TRAINING**

From time to time employees are sent on various training courses to keep up with industry trends and job demands. A complete updated list including any expiration dates of the courses taken by each employee is kept on the employee's individual file for record purposes.

## ***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.

### **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

## **PAINT & SIGN SHOP – TRAINING MATRIX**

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

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

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

### **FINISHING OF WOOD / METAL FABRICATED PRODUCTS:**

| <b>Task</b>                      | <b>Training Date</b> | <b>Proficiency Date</b> | <b>Employee</b> | <b>Supervisor</b> |
|----------------------------------|----------------------|-------------------------|-----------------|-------------------|
| <b>P.P.E. (Use and Care):</b>    |                      |                         |                 |                   |
|                                  |                      |                         |                 |                   |
| <b>Safe Work Practices:</b>      |                      |                         |                 |                   |
|                                  |                      |                         |                 |                   |
| <b>Air Compressor Operation:</b> |                      |                         |                 |                   |
| - Gauges                         |                      |                         |                 |                   |
| - Valve Settings                 |                      |                         |                 |                   |
| - Air Pressure Controls          |                      |                         |                 |                   |
| - Air Sander                     |                      |                         |                 |                   |
| - Conventional Sprayer           |                      |                         |                 |                   |
|                                  |                      |                         |                 |                   |
| <b>Application of Finish:</b>    |                      |                         |                 |                   |
| - Product Selection              |                      |                         |                 |                   |
| - Product Mixing / Blending      |                      |                         |                 |                   |
| - Product Application            |                      |                         |                 |                   |
|                                  |                      |                         |                 |                   |
| <b>Cleanup:</b>                  |                      |                         |                 |                   |
| - Sprayer                        |                      |                         |                 |                   |
| - General Area                   |                      |                         |                 |                   |

***\* Upon successful completion of training for individual tasks the matrix is signed and dated by the employee and the supervisor.***

## **PAINT & SIGN SHOP – TRAINING MATRIX**

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

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

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

### **PAINTING:**

| <b>Task</b>                 | <b>Training Date</b> | <b>Proficiency Date</b> | <b>Employee</b> | <b>Supervisor</b> |
|-----------------------------|----------------------|-------------------------|-----------------|-------------------|
| <b>P.P.E (Use and Care)</b> |                      |                         |                 |                   |
|                             |                      |                         |                 |                   |
| <b>Safe Work Practices</b>  |                      |                         |                 |                   |
|                             |                      |                         |                 |                   |
| <b>Prep Work:</b>           |                      |                         |                 |                   |
| - Taping                    |                      |                         |                 |                   |
| - Patching                  |                      |                         |                 |                   |
| - Sanding                   |                      |                         |                 |                   |
| - Drywall Patching          |                      |                         |                 |                   |
|                             |                      |                         |                 |                   |
| <b>Painting</b>             |                      |                         |                 |                   |
| - Rolling                   |                      |                         |                 |                   |
| - Brushing                  |                      |                         |                 |                   |
| - Product Selection         |                      |                         |                 |                   |
| - Product Mixing / Blending |                      |                         |                 |                   |
| - Product Application       |                      |                         |                 |                   |
|                             |                      |                         |                 |                   |
| <b>Clean-up</b>             |                      |                         |                 |                   |
| - Brushes / Rollers / Pans  |                      |                         |                 |                   |
| - General Area              |                      |                         |                 |                   |

***\* Upon successful completion of training for individual tasks the matrix is signed and dated by the employee and the supervisor.***

## ***PAINT & SIGN SHOP – SUMMER STUDENT TRAINING MATRIX***

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

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

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

### **SIGNS:**

| <b>Task</b>                  | <b>Training Date</b> | <b>Proficiency Date</b> | <b>Employee</b> | <b>Supervisor</b> |
|------------------------------|----------------------|-------------------------|-----------------|-------------------|
| <b>P.P.E (Use and Care)</b>  |                      |                         |                 |                   |
|                              |                      |                         |                 |                   |
| <b>Safe Work Practices</b>   |                      |                         |                 |                   |
|                              |                      |                         |                 |                   |
| <b>Software</b>              |                      |                         |                 |                   |
|                              |                      |                         |                 |                   |
| <b>Standards</b>             |                      |                         |                 |                   |
| - Colours                    |                      |                         |                 |                   |
| - Type                       |                      |                         |                 |                   |
| - Font                       |                      |                         |                 |                   |
| - Logos / Symbols            |                      |                         |                 |                   |
|                              |                      |                         |                 |                   |
| <b>Materials (Selection)</b> |                      |                         |                 |                   |
| - Vinyl                      |                      |                         |                 |                   |
| - Transfer Tape              |                      |                         |                 |                   |
| - Glass                      |                      |                         |                 |                   |
| - Plastics                   |                      |                         |                 |                   |
| - Wood                       |                      |                         |                 |                   |
| - Metal                      |                      |                         |                 |                   |
|                              |                      |                         |                 |                   |

***\* Upon successful completion of training for individual tasks the matrix is signed and dated by the employee and the supervisor.***

## ORIENTATION & TRAINING

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### SIGNS (cont.):

| Task                     | Training Date | Proficiency Date | Employee | Supervisor |
|--------------------------|---------------|------------------|----------|------------|
| <b>Chemicals</b>         |               |                  |          |            |
| - Purpose / Application  |               |                  |          |            |
| - Proper Use             |               |                  |          |            |
|                          |               |                  |          |            |
| <b>Sign Assembly</b>     |               |                  |          |            |
|                          |               |                  |          |            |
| <b>Hanging</b>           |               |                  |          |            |
| - Hanging Methods        |               |                  |          |            |
| - Types of Hangers       |               |                  |          |            |
| - Tools                  |               |                  |          |            |
|                          |               |                  |          |            |
| <b>Clean-up</b>          |               |                  |          |            |
| - Sign Shop              |               |                  |          |            |
| - Posting / Hanging Area |               |                  |          |            |
|                          |               |                  |          |            |
|                          |               |                  |          |            |
|                          |               |                  |          |            |
|                          |               |                  |          |            |
|                          |               |                  |          |            |
|                          |               |                  |          |            |
|                          |               |                  |          |            |
|                          |               |                  |          |            |
|                          |               |                  |          |            |

***\* Upon successful completion of training for individual tasks the matrix is signed and dated by the employee and the supervisor.***

UNIVERSITY OF LETHBRIDGE  
FACILITIES

HEALTH & SAFETY PROGRAM

**FORMAL INSPECTIONS**



## ***INFORMAL INSPECTIONS***

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

All Facilities 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 Facilities Service Centre located in TH101. Deficiencies that are the responsibility of Utilities are reported to the Administrative Support in 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 Facilities 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 Facilities 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 Facilities, 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: \_\_\_\_\_

\_\_\_\_\_

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: \_\_\_\_\_

UNIVERSITY OF LETHBRIDGE  
FACILITIES

HEALTH & SAFETY PROGRAM

**EMERGENCY RESPONSE PLANNING**



## Interoffice Memorandum

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**Date:** August 05, 2010

**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 Facilities 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 Facilities 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 Director of Security Services, Director Facility Operations & Maintenance, Associate Director of Facilities, or the Executive Director of Facilities, or in their absence, a senior Facilities 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 Director of Security Services, Director Facility Operations & Maintenance, Associate Director of Facilities, or the Executive Director of Facilities are not available.

Facilities 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 Associate Director of Facilities or Executive Director of Facilities.

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  
Facilities

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 – Facilities

**Date:** September 2001

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

Each department within Facilities 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 Facilities***

#### ***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.

## **EMERGENCY RESPONSE PROCEDURES**

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### **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 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.

## **EMERGENCY RESPONSE PROCEDURES**

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### ***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 Facility 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.)

## **EMERGENCY RESPONSE PROCEDURES**

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### **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.

**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**

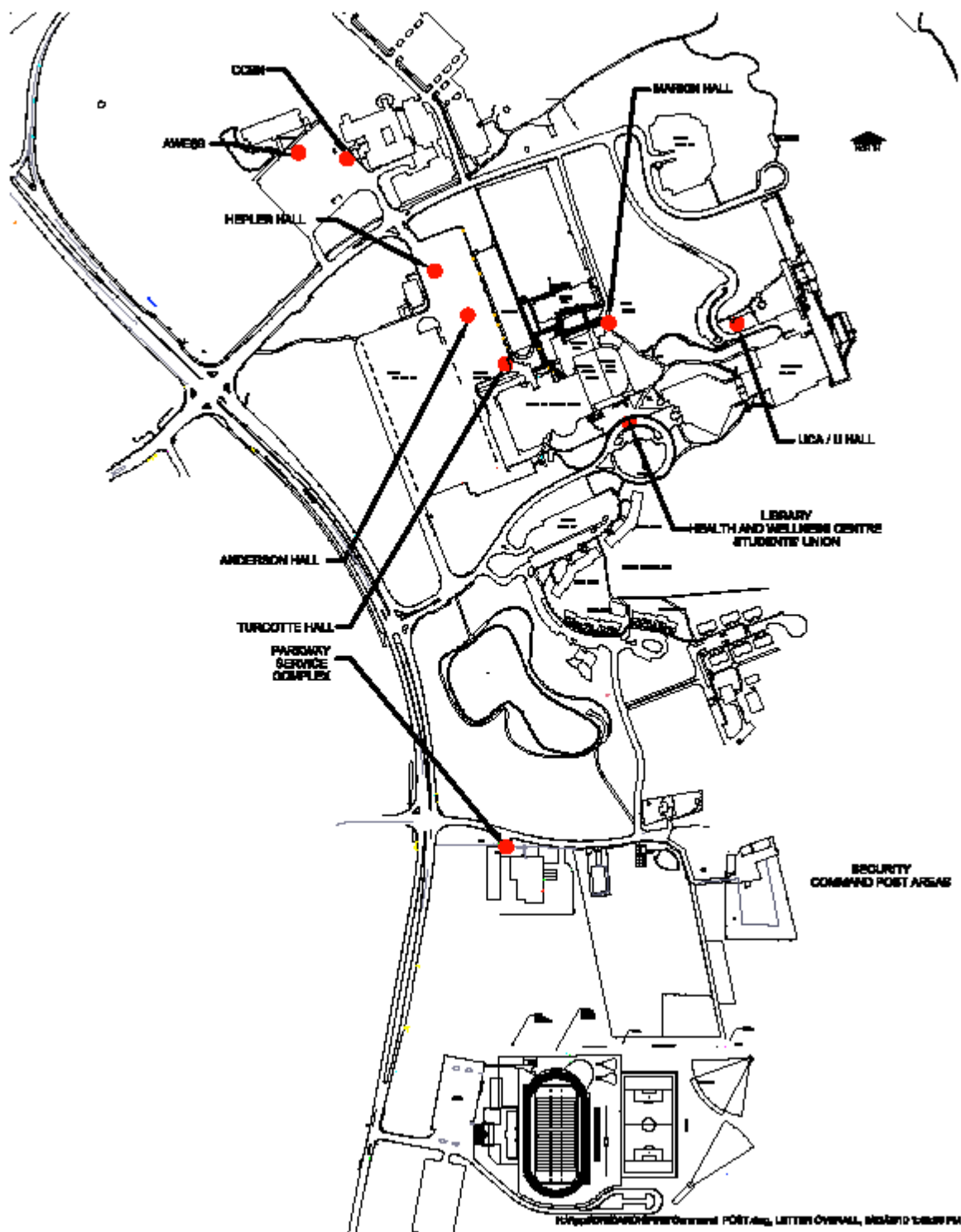
**TRY TO EXTINGUISH (IF SMALL)**

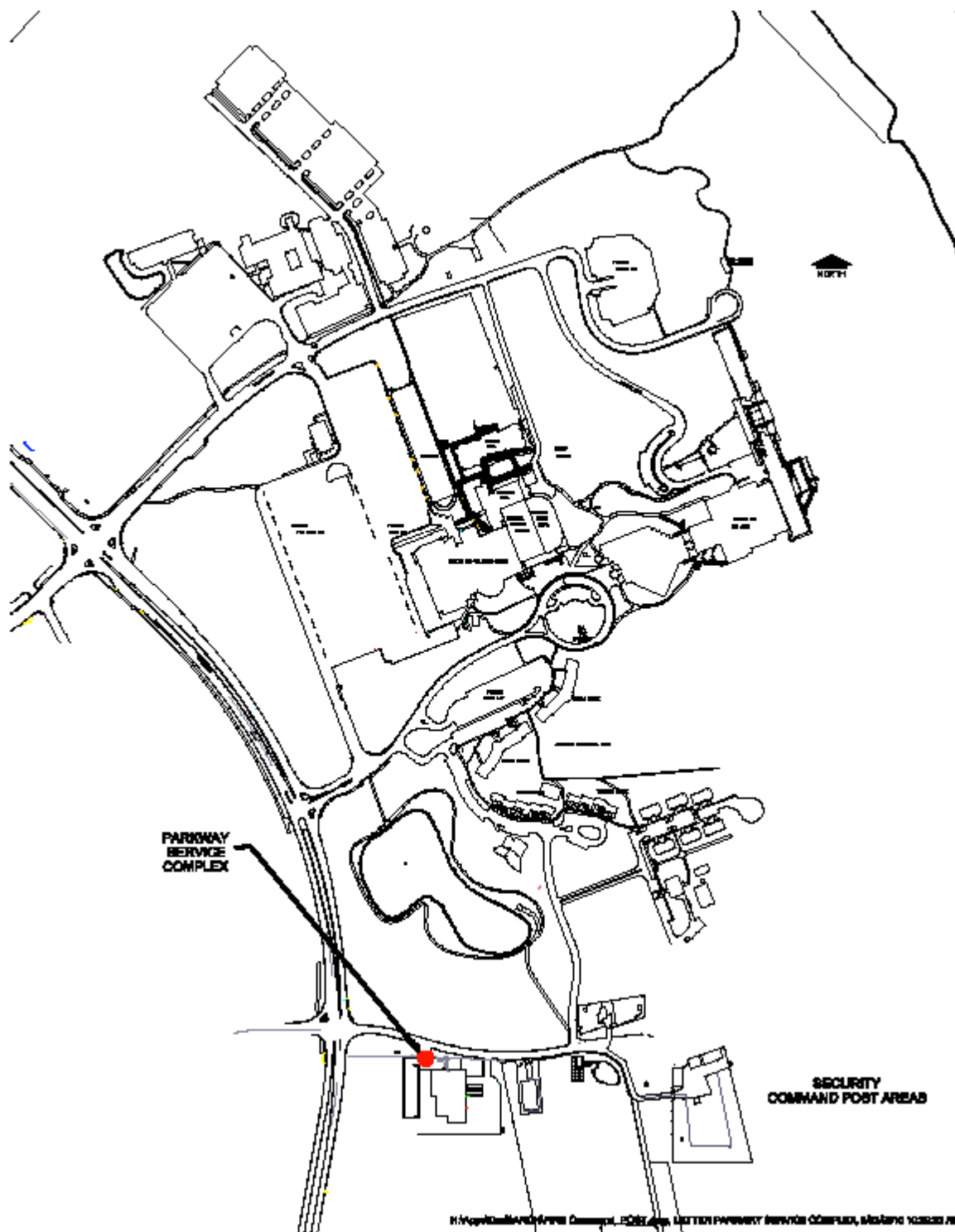
***FIRE PREVENTION DUTIES OF FIRE WARDENS***

**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.**





UNIVERSITY OF LETHBRIDGE  
FACILITIES

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 Executive Director of Facilities 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 RSS 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 RSS department on campus. This is for the department's own investigation and follow-up procedures.

**On-line forms can be found at [www.uleth.ca/hum/riskandsafety/services](http://www.uleth.ca/hum/riskandsafety/services)**

## ***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.
- Refer to the University Policy 'Transportation of Ill or Injured Persons'

#### **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 RSS 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 at [www.uleth.ca/hum/riskandsafety/services](http://www.uleth.ca/hum/riskandsafety/services)
- Send the completed Accident / Incident Report form to RSS.

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

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

- Fax the completed Accident / Incident Report form to RSS at (403) 329-2685.
- Or call: RSS at (403) 382-7176.

## **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 RSS.
- No other formal report required at this time.
- In the event of U of L property loss, RSS 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 RSS found at [www.uleth.ca/hum/riskandsafety/services](http://www.uleth.ca/hum/riskandsafety/services) , must be completed as soon as you return to campus or within 48 hours.
- Fax the completed form to RSS at (403) 329-2685.

### **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, RSS 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 RSS.

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

- Fax a completed Accident / Incident report form to RSS (403) 329-2685.

##### **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 RSS 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 RSS 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 MasterCard 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 INVESTIGATION**

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***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**

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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:

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



## INCIDENT INVESTIGATION

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### ***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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## ***LOCATION OF FIRST AID KITS***

- |                       |   |
|-----------------------|---|
| 1. <b><u>AH</u></b>   | AH1J2                                     |
| 2. <b><u>CCBN</u></b> | EP12J1                                    |
| 3. <b><u>HH</u></b>   | HH1J01                                    |
| 4. <b><u>LINC</u></b> | L814<br>L9J1<br>L10J1<br>L11J1            |
| 5. <b><u>PE</u></b>   | PE1J2<br>PE2J7                            |
| 6. <b><u>PWSC</u></b> | SC1305<br>SC1320<br>SC1330<br>SC1360      |
| 7. <b><u>SUB</u></b>  | SU062<br>SU1M2<br>SU2M1<br>SU3J1          |
| 8. <b><u>TH</u></b>   | TH129<br>TH1J1<br>TH2J1<br>TH3E1          |
| 9. <b><u>UCA</u></b>  | W4J15<br>W5J15<br>W6J15<br>W7J15<br>W8J15 |
| 10. <b><u>UH</u></b>  | B424<br>C5J1<br>D6J1<br>C7J1<br>C8J1      |

UNIVERSITY OF LETHBRIDGE  
FACILITIES

HEALTH & SAFETY PROGRAM

**POLICIES & GUIDELINES**

### **WORK ALONE POLICY – FACILITIES**

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 Facilities, 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 Facilities Departments.

## ***BUILDING MAINTENANCE WORK ALONE POLICY***

Date of Submission: April 11, 2001

Latest Revision: May 24, 2007

### **PURPOSE**

To ensure that Building Maintenance staff working alone can do so safely.

### **OBJECTIVES**

To develop procedures that will firstly eliminate risks associated with various work tasks, and secondly implement effective safety measures to minimize or control the risks where elimination cannot be achieved, in order for our employees to carryout their work in a safe manner.

### **DEFINITION**

Working Alone - An employee is considered to be working alone if the employee works at a work site in circumstances where assistance is not readily available when needed.

### **WORKING ALONE SITUATIONS**

- Roof related duties including inspections, repairs and maintenance.
- Traveling alone.
- Alternate work schedule.
- Carpenter / Paint & Sign Shops

### **EFFECTIVE MEASURES OF COMMUNICATION**

All regular Building Maintenance employees are provided with cellular phones to carry on their person during regular working hours. Casual employees carry pagers that are linked to The University of Lethbridge in-house paging system

### **PROCEDURES:**

- **Roof Related Duties:** Building Maintenance staff will perform all roof related work with a minimum task force of two, thus eliminating all risks associated with working alone.
- **Traveling Alone:** This involves Building Maintenance staff who travel alone in the following circumstances:

#### **Delivering / obtaining supplies from remote storage buildings and local suppliers:**

Building Maintenance staff will contact Facilities Service Centre and advise of the travel plan. The plan will include the destination, time of departure and expected time of return. The staff member is to contact the Service Centre upon returning.

Service Centre staff will record the travel plan. Should the employee not contact Service Centre at the expected time of return, the Service Centre will attempt to contact the employee via their cellular phone. If attempts to contact the employee fail the Service Centre staff will notify the Superintendent of Buildings and advise that the employee is overdue to return. The Superintendent will then take measures to locate the overdue employee. These measures may include:

- Phoning the employee
- Contacting co-workers
- Contacting the Operations Supervisor
- Contacting supplier to identify the times of arrival / departure
- Personally retracing the travel route
- Contacting campus Security for assistance
- Contacting local police for assistance.

If Service Centre is unsuccessful in contacting the Superintendent of Buildings, they should attempt to contact in the following order: the Building Maintenance Operations Supervisor; Associate Director, Physical Plant; Executive Director, Physical Plant; Superintendent of Security on his / her cell phone or at their personal residence. The contact person will then take the necessary measures to locate the employee.

### **Traveling to remote facilities on / off campus to perform routine maintenance work:**

The procedure for traveling to remote facilities remains the same as delivering / obtaining supplies as mentioned above with the following exceptions.

When traveling to remote facilities off campus, ie. Gushel Studio, Westcastle etc. Building Maintenance staff will travel together with a minimum work force of two at all times to eliminate the working alone situation, and the employees must carry a cellular telephone with them to call for immediate assistance should it be required. A detailed travel plan indicating destination(s) time of departure, time of return and the contact cellular number must be relayed to Service Centre prior to leaving.

Should the travel plan require the employee to return to campus after regular working hours, Physical Plant Service Centre will notify Campus Security with the travel plan indicating the expected time of return. The employee in this situation will contact Campus Security upon returning. Should the employee not contact Campus Security at the expected time of return, Campus Security will notify the Superintendent of Buildings on his cell phone or at their personal residence and advise that the employee is overdue. The Superintendent of Buildings will then take measures to locate the overdue employee. These measures may include:

- phoning the employee
- contacting co-workers
- contacting the Operations Supervisor
- personally retracing the travel route
- contacting local police for assistance

If Campus Security is unsuccessful in contacting the Superintendent of Buildings, they should attempt to contact, in the following order: the Building Maintenance Operations Supervisor; Associate Director, Physical Plant; Executive Director, Physical Plant; Superintendent of Security on his / her cell phone or at their personal residence. The contact person will then take the necessary measures to locate the employee.

### **Alternate Work Schedule:**

When a Building Maintenance employee is scheduled to work, or is called in to work at times other than his / her regular scheduled shift, the employee is to contact Campus Security immediately upon arriving on campus. The employee is to inform Campus Security of the nature of work to be performed, the location and the expected completion time. Upon completion of the work, the employee is to contact Campus Security and advise of their departure.

Should the Building Maintenance employee not contact Campus Security at the expected time of completion, Campus Security will then take measures as indicated above to locate the employee.

### **Carpenter and Paint & Sign Shops:**

There is a phone in the hallway immediately outside the door to the carpenter shop and paint room, as well, there is a phone inside the sign shop that can be used to call for assistance if needed. The employees also check in at the beginning of their shift, as well as morning and afternoon breaks, lunch (12:00) and hand in their keys at the end of the day.

UNIVERSITY OF LETHBRIDGE  
FACILITIES

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 man hours logged over the claims year.

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

ie.

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

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

## SAFETY MEETING

**TOPIC:** \_\_\_\_\_

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

**TIME:** \_\_\_\_\_

**NAME: (PLEASE PRINT)**

**SIGNATURE**

DEPARTMENT

[illegible]

[illegible]

Meeting Coordinator / Department

TJ Hanson - Director  
Facilities Operations & Maintenance

Date Approved \_\_\_\_\_

UNIVERSITY OF LETHBRIDGE  
FACILITIES

HEALTH & SAFETY PROGRAM

**SAFE WORK PRACTICES**

## BANDSAW

- **Wear appropriate PPE (Safety Glasses and Hearing Protection)**
- Check the blade for any cracks.
- Check to insure the blade is tracking in the center of the wheel.
- Use the proper blade for the radius of curve to be cut. Refer to the blade thickness chart located on the saws pulley guard.
- The saw guide must be adjusted within one-fourth inch of stock to be cut before power is turned on.
- Do not allow fingers to come closer than two inches to saw when cutting stock.
- Do not allow hands across the saw line when operating bandsaw.
- Do not stand at right hand side of bandsaw machine. A serious accident might result if saw should break.
- If necessary to back saw out of a long cut, power should first be turned off and machine allowed to come to a dead stop.
- Be sure the radius of your cutting is not too small for the width of the blade of the saw.
- Cylindrical stock must never be cut on bandsaw.
- Stock must not be cut on the bandsaw unless such material is firmly supported against downward thrust of the saw. Do not saw into the toe of a long bevel cut unless the toe is on the table.
- If bandsaw blade should break while machine is in operation immediately shut off power before changing blade. A rhythmic click may indicate a cracked blade. Shut off the machine and change out blade.
- If help is needed to support heavy or long work, the helper should never pull or guide the work. He supports the weight, the operator runs the machine.

## ***CHOP SAW***

- Safety glasses and hearing protection must be worn at all times when operating Chop Saw.
- Keep working area clean at all times.
- Inspect saw to ensure all guards are in place and cords, blades and switches are well maintained and in safe operating condition.
- Pick a clean area, hopefully 20 to 30' radius area, so the pipe can be turned freely without obstructions.
- Set up Chop Saw on a level base.
- Set up blocks approximately 10' back of power vise also on a solid level base. This is to hold opposite end of pipe being cut.
- Make sure power supply is properly grounded.
- Mark location on pipe to be cut and place in Chop Saw. Place cutting wheel on mark and pull trigger to start saw.
- If pipe being cut extends more than approximately 3' in front of chop saw you should also have blocks in front.



## **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

- **Wear appropriate PPE (Safety Glasses & Hearing Protection).**
- 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. (Not with your hands)
- 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.

## ***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 uncured 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.



## GRINDING

- **Wear appropriate PPE (Safety Glasses and Hearing Protection).**
- 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.
- Acquire hot work permit

## ***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 use wet floor signs.
- Store flammable liquids in approved sealed containers away from open flame, sparks or sources of ignition.

## JOINTER

- **Wear appropriate PPE (Safety Glasses and Hearing Protection).**
- Guard must be kept over knives at all times while jointer is being operated.
- The dust collection system should be hooked up and turned on to remove wood chips from around the cutter heads.
- The depth of the cut must be adjusted before power is turned on.
- A push stick must be used when jointing narrow or flat pieces of stock.
- The jointer must not be used for strips less than one inch wide.
- The end grain of pieces of wood less than 12 inches wide must never be run over the jointer. Pieces 12 inches and wider can be successfully jointed against the end grain. In performing this operation, first run the end of the board on to the revolving blade for about 1 inch, then turn the board around and joint the end all the way across; this prevents splitting.

## ***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 METAL SCAFFOLDS***

There are various types of metal scaffolds and they all have a right and wrong way to be erected.

The misuse of scaffolding is the cause of numerous serious injuries. Every worker who designs or constructs a scaffold should be competent and know what the manufacturer's specifications are for that type of scaffold.

The scaffold type, which will be the best suited for the job and capable of withstanding the loads to be imposed on it must be determined before the job begins.

Ensure that:

- The scaffold you intend to use is the correct one for the job.
- The location in which the scaffold is to be constructed is level or is capable of presenting secure footing by use of mudsills or some other device.
- The scaffold will be erected by a competent worker.
- Legislative and manufacturer's requirements have been complied with.
- Safe access and egress to both the scaffold and the general work area has been provided.
- Leveling adjustment screws have not been over extended.
- Tower scaffolds have outriggers or are guyed and have all component parts secured in place (i.e. cross braces, pins, lateral braces).
- Scaffold work platforms have a perimeter guardrail
  - Horizontal rail - 0.92 meters to 1.07 meters above the platform.
  - Intermediate rail - Horizontal rail midway between scaffold platform and top rail.
  - Toe board - Horizontal member at platform level no less than 140mm in height above the platform level.
- Scaffold planks are of number one grade materials with maximum spans of 3.1 meters on light duty and 2.3 meters on heavy duty with a maximum projection beyond the ledger of no more than 300 mm.

## **MOBILE AERIAL WORK PLATFORM**

- *Employees may only operate machine if 'Mobile Aerial Lift Training' course has been taken.*
- *Pre-Use Inspections – Inspect or Test the Following:*
  - Operating and emergency controls
  - Safety devices and limit switches
  - Personal protective devices
  - Tires and wheels
  - Equipment structure
  - Air, hydraulic and fuel systems for leaks
  - Loose or missing parts
  - Cable and wiring harnesses
  - Placards, warning, control markings and operating manuals
  - Handrail systems including locking pins
  - Engine oil level
  - Battery fluid level
  - Coolant level
  - Propane bottle secured (if equipped)
  - Parking brake
  - Horn
- *Function Test:*
  - Base functions and operation
  - Basket function and operation
  - Height / speed limiter switch (put machine in low speed when platform is raised)
  - Motion alarm
  - Hydraulic function test
  - Emergency controls
- *Work Area Inspection:*
  - Manhole covers, grating or unstable surfaces
  - Ramps, inclines or rough surfaces.
  - Electrical hazards overhead
  - Underground utilities
  - Pedestrian / Vehicular traffic
  - Ground Condition

- *Use of Equipment:*

- Never modify or alter equipment unless approved by the manufacturer.
- Never extend work platform with planks or other equipment.
- Always wear fall restraint.
- Fall restraint should be a 4' lanyard.
- Keep platform clean and free of tripping hazards.
- Never operate equipment on incline.
- Do not exceed equipment's working load limit.
- Make sure weight stays centered on platform.
- Only use machine as it is intended.
- Do not exceed side loading on platform.

- *Operating Procedures:*

- Perform pre-use safety inspections (see pre-use inspection) before each use. The aerial platform shall be given a visual inspection and functional test. If any problems are encountered, the aerial lift shall not be used and reported immediately to the Supervisor and Mechanic.
- Do not exceed recommended weight capacity.
- A workplace inspection shall be performed for any hazards such as manholes, roadway problems, slopes, overhead obstructions, wind and weather conditions, inadequate surface and support to withstand all load forces imposed by the aerial platform in all operating configurations and presence of unauthorized persons.
- No one shall travel in a basket, platform or other elevated or aerial device that is moving on a roadway or worksite if road conditions, traffic, overhead wires, cables or other obstructions create danger to the operator or workers.
- Ensure all required PPE is worn when operating aerial lift (see Info Sheet for Safety Belts, Lanyards and Lifelines).
- Do not climb on outside of equipment.
- Do not move the machine while platform is in an elevated position.

## **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 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.

## **INSTRUCTIONS FOR USE OF PRESSURE WASHER**

- ***Park vehicle away from bay doors and building to allow room to wash and for drainage.***
- ***Turn on water. (Ball valve behind washer)***
- ***Pull trigger on wand to release hose pressure. – Do not unreel or reel up hose under pressure***
- ***Reel out hose***
- ***Turn switch to PUMP (cool water) or BURNER (hot water)***
- ***If soap is needed turn on toggle switch for soap. – there may be a slight delay for soap & hot water***
- ***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.***
- ***When done washing turn off pump.***
- ***Pull trigger on wand to release pressure on hose.***
- ***Put wand in holder and roll hose up. Do not drag wand on ground when rolling up hose***
- ***Clean up mud and grass with shovel and broom.***

## ***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.

- Test the load. If too heavy ask for help!
- 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**

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

- Observe but do not attempt to capture the snake.
- Contact the phone number below in the order listed until contact is made.
- **RATTLESNAKE REPORTING CALL SECURITY**
- ***Phone/Cell Number 329-2603 or 329-2345***
- If you are unable to contact Security for removal, the snake still reflects as a safety hazard and must be removed by U of L personnel. Contact Ian Wells (317-0733) to capture the rattlesnake.
  - The container holding the snake must be kept in the shade after capture as rattlesnakes are very heat sensitive.

### **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.

Please exercise caution when walking around campus, particularly in the coulees, as snakes are occasionally sighted. Rattlesnakes are not aggressive and given a choice will retreat rather than strike.

Although some people may find them loathsome, rattlesnakes are a naturally occurring species in a properly functioning prairie ecosystem such as we have around Lethbridge. They are practically harmless and will only strike if extremely provoked or stepped on. They play a very important role in the control of rodents and thus reduce the spread of diseases such as hanta virus.

Rattlesnakes are the color of dry prairie grass and have a very well-defined, triangular-shaped head. They may or may not possess rattles. Lethbridge is also home to the bull snake which imitates the rattlesnake by coiling up and shaking its tail, but it does not actually have a rattle. Bull snakes are not poisonous.

If you see a rattlesnake, walk slowly away from it. Give the snake plenty of room to escape from you. Notify Security at 329-2345. They will have a specialist relocate the snake to a natural habitat.

## **SAFE WORK PRACTICES**

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In Alberta, rattlesnakes are blue-listed which means they have undergone declines in population or habitat and may be at risk.

Please remember, it is illegal to kill rattlesnakes, possess rattlesnakes or their parts or damage occupied den areas. Many people do not realize that there are significant charges and fines for killing a rattlesnake in Alberta.

## ***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 in place.
- 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.

## CIRCULAR TABLE SAW

- **Wear appropriate PPE (Safety Glasses and Hearing Protection).**
- The guard must be kept down over the saw while machine is being operated.
- The saw blade should not be raised above the table more than absolutely necessary to make the cut (slightly above depth of material being cut).
- A push stick must be used when ripping narrow pieces of lumber (mounted on saw).
- The clearance block must be fastened to fence when cutting off short pieces of stock. Never adjust fence until saw is at a dead stop.
- Fingers must be kept clear of track of saw, and hands never allowed to cross saw line in advance of the end of the board while machine is in operation.
- Never attempt to clear away scraps close to the saw with their fingers. If necessary to move them, they should be pushed away with a stick.
- The dado head must be taken off the saw arbor after use.
- When helping to "tail-off" the saw, never pull on a board being ripped. Hold up board, and allow operator to push stock through saw.
- Cylindrical stock must not be cut on circular saw.
- Never lower pieces of stock down over the saw.
- Do not rip stock without using the ripping fence, or crosscut stock without using the sliding crosscutting fence.
- See that no fence or setup will be in line of saw before starting work or turning on power.
- Be sure that saw on tilting arbor saw will clear on both sides when sawing angles, before power is turned on.
- The edge of a board, which is run on the ripping fence, should be straight. Avoid ripping through loose knots or checks where large slivers must be cut loose and thrown by the saw.
- Stand a little to one side of the saw line so that any kickback will go past. Avoid letting wood hang between the fence and the saw.
- Warped or twisted lumber that does not lie flat on the table may cause a kickback.
- Drop the blade when not in use.
- Clean up the saw dust on and around the saw to prevent a slipping hazard.
- Discuss the different blade types and there uses.
- Discuss the cutting list of material.
- Use the proper blade for the material you are cutting.
- Be sure your table top is free of debris before running material across the table saw; this will prevent damage to your material being cut.

### ***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 HAND HELD POWER CIRCULAR SAW***

This type of power hand tool is one of the most commonly used in construction. Because of this common use there are numerous accidents due to thoughtless acts.

The following are the minimum accepted practices to be used with this saw.

- Approved safety equipment such as safety glasses or a face shield is to be worn.
- Where harmful vapours or dusts are created, approved breathing protection is to be used.
- The proper sharp blade designed for the work to be done must be selected and used.
- The power supply must be disconnected before making any adjustments to the saw or changing the blade.
- Before the saw is set down be sure the retracting guard has fully returned to its down position.
- Both hands must be used to hold the saw while ripping.
- Maintenance is to be done according to the manufacturer's specifications.
- Ensure all cords are clear of the cutting area before starting to cut.
- Before cutting, check the stock for foreign objects or any other obstruction, which could cause the saw to "kick back".
- When ripping, make sure the stock is held securely in place. Use a wedge to keep the stock from closing and causing the saw to bind.

## ***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 FACILITIES

## 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. Act, Regulation & Code and  
CSA Standard "Industrial Eye and Face Protectors" 294.3 - M1982.

## **PERSONAL PROTECTIVE EQUIPMENT**

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### **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)*

## PERSONAL PROTECTIVE EQUIPMENT

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### 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 HEAD PROTECTION***

### **General Information**

Safety headwear is designed to protect the head from impact from falling objects, bumps, splashes from chemicals or harmful substances, and contact with energized objects and equipment.

In construction, the recommended type of protective headwear is the Class B hard hat which has the required "dielectric strength". There are many designs but they all must meet the CSA requirements for Class B Industrial head protection.

Most head protection is made up of two parts:  
the shell (light and rigid to deflect blows)  
the suspension (to absorb and distribute the energy of the blow)

Both parts of the headwear must be compatible and maintained according to manufacturer's instructions. If attachments are used with headwear, they must be designed specifically for use with the specific headwear used. Bump caps are not considered a helmet. In Alberta they can only be used when the only hazard is where a worker might strike his/her head against a stationary object.

### **Inspection and Maintenance**

Proper care is required for headgear to perform efficiently. The service life is affected by many factors including temperature, chemicals, sunlight and ultraviolet radiation (welding). The usual maintenance for head gear is simply washing with a mild detergent and rinsing thoroughly.

#### **Do:**

- replace headgear that is pitted, holed, cracked or brittle
- replace headgear that has been subjected to a blow even though damage cannot be seen
- remove from service any headgear if its serviceability is in doubt
- replace headgear and components according to manufacturer's instructions
- consult OH&S or your supplier for information on headgear.

#### **Don't:**

- drill, remove peaks, alter the shell or suspension in any way
- use solvents or paints on the shells (makes shells "break down")
- put chin straps over the brims of Class B headgear
- use any liner that contains metal or conductive material
- carry anything in the hard hat while wearing the hard hat

## ***“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 RSS 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 RESPIRATORY PROTECTION***

### **General Information**

Respiratory protection falls into two major categories. The first category is Air Purifying Respirators (APRs) which are particle (dust) chemical cartridges but NO visor plate. The second category is Atmosphere Supply Respirators, including self-contained breathing apparatus (SCBA), air line systems and protective suits that completely enclose the worker and incorporate a life support system.

Only APRs will be dealt with here. The second category of respirators requires much more specific information and training. If you need to use Atmosphere Supplying Respirators, you should get expert advice.

### **APRs**

There are two basic types of APRs:

- disposable fibre type with or without charcoal or chemical filter "buttons" and
- the reusable rubber face mask type with disposable or rechargeable cartridges.

The choice depends on your job, labor, cost, and your maintenance facility.

It's Important to remember that APRs are limited to areas where there is enough oxygen to support life. APRs don't supply or make oxygen.

The service life is affected by the type of APR, the wearer breathing demand, and the concentration of airborne contaminants. When an APR is required, consult the Material Safety Data Sheet (MSDS), OH&S or supplier for the exact specifications for the APR.

Facial hair can prevent a good seal and fit of an APR: One to three days growth is the worst. Follow the manufacturer's instructions to the letter regarding the mask, filters, cartridges and other components. Workers who must use respiratory protection should be clean shaven.

An APR is only as good as its seal and its ability to filter out the contaminants it was designed to filter.

### **Combination Respirators**

This type of APR combines separate chemical and mechanical filters. This allows for the change of the different filters when one of them becomes plugged or exhausted before the other filter (usually the dust filter plugs up before the chemical filter). This type of respirator is suitable for most spray painting and welding. For more information check the:

- Material Safety Data Sheet (MSDS)
- OH&S Act, Regulation & Code
- the local OH&S office
- the safety equipment supplier

### **For more information, look at:**

Alberta OH&S Act, Regulation & Code  
CSA Standards "Compressed Breathing AID" Z180.1 - M1978  
"Selection, Care and Use of Respirators" 294.4 - M1982  
Chemical Hazards Regulation (Alberta Reg. 8/82)

### **Do**

- train workers very carefully in the APR's use, care and limitations
- ensure that respirators are properly cleaned and disinfected after each shift, according to the manufacturer's instructions
- dispose of exhausted cartridges and masks in sealed bags or containers
- keep new, unused filters separate from old, used filters
- monitor APR use; they are useless just hung around the neck
- replace filters when breathing becomes difficult.

### **Don't**

- use for protection against materials which are toxic in small amounts
- use with materials that are highly irritating to the eyes
- use with gases that can't be detected by odor or throat or nose irritation
- use with gases not effectively halted by chemical cartridges regardless of concentration (read the cartridge label)
- use respirators or masks if the serviceability is in doubt ,
- use APRs where oxygen content in the air is less than 18 % or 18 kilopascals (partial pressure or greater)

## ***“ 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.
- Hats 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).