

VICTORIA UNIVERSITY HEALTH AND SAFETY PROCEDURE

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Review/Revise Date:

HAZARD IDENTIFICATION AND CONTROL

PURPOSE

The purpose of this procedure is to identify workplace hazards (including reporting processes), assess the risk and implement appropriate measures and controls to eliminate or reduce the risk of the hazard.

The Hazard Assessment can be used to:

- Increase knowledge of the dangers inherent in the tasks of employees.
- Aid in orientation training for new employees on the hazards and controls
- Identify where further controls are required such as improve guarding, safety sensors, procedures, training, etc.
- Enhance safety awareness, improve safety dialogue and communication among employees.
- Improve focus for workplace safety inspections.
- Improve risk management leading to increased accident prevention.
- Comply with the Occupational Health and Safety Act.

SCOPE

This procedure applies to all employees at all locations.

DEFINITIONS

Hazardous Condition/Acts:

Unsafe Acts: are behaviours, which could lead to an accident

Examples of unsafe acts: can include using equipment in an unsafe or careless manner and/or not using personal protective equipment as required.

Unsafe conditions: are circumstances, which could allow the accident to occur

Examples of unsafe conditions: can include inadequate, improper or lack of guarding, work surfaces, electrical grounding requirements not observed and containers that are not labelled. These are just a few of many unsafe conditions that can exist in a workplace.

STANDARDS/PROCEDURES

Recognizing and assessing hazards is the first step to controlling or eliminating risk. Methods of doing this include observation and reporting, inspection, task analysis, and trend identification.

A hazard assessment is a detailed, organized review of a work area, process or job that:

- Identifies the risk
- Understands the consequences of those risks
- Reviews ways to control risk and add new controls where required

Factors that contribute to risk are identified as (also known as PEMEP):

- People (training, actions, behaviours)
- Equipment (tools, machines)
- Materials (chemicals, raw materials)
- Environment (temperature, air quality, noise)
- Process (the way the work is done).

The degree of hazard or risk can be estimated using knowledge of the potential for a major injury (severity) and knowledge of probability of occurrence (For example: an inexperienced worker or a new job).

Hazard Reporting Process

- It is the responsibility of any worker to report to their supervisor, the existence of any hazard of which they are aware immediately.
- The supervisor must ensure that any hazardous condition or act is followed up with a timely response or action. The Hazard Report form must be used when the hazard cannot be corrected immediately. The hazard report form should be submitted within 24 hours and includes:
 - Description of the hazard,
 - Rate hazards,
 - Assigned responsibility for corrective action,
 - Dates
 - Follow up, etc.
- The supervisor is to ensure that copies of the hazard report are distributed to the Senior Management of Victoria University and the JHSC.

Hazard Assessment Process

Step 1) Recognize the Hazard and Current Controls

1. Select a work area, process or job (similar jobs across the campus can be grouped together, i.e. office work).
2. Break down the work area, process or job into tasks (including routine and non-routine tasks).
3. Identify the hazards associated with each task using the 6 hazard types as well as describe the risk of the hazard in more detail (i.e MSD- risk of injury from awkward postures at a desk, safety- risk of slips, trips or falls). Hazards can be identified in a variety of ways such as:
 - Worker reports of hazards
 - Review of Accident/Incident investigations
 - Equipment/manufacturers manuals
 - Interviews
 - Inspections
 - Ministry of Labour, Immigration, Training and Skills Development (MLITSD) bulletins, alerts, etc.

Hazard Types:

Chemical	compressed gases, flammables, caustics, etc.
Physical	noise, weather, heat, cold, vibration, radiation, etc.
Biological	exposure to blood, diseases, insect bites, plants, etc.
MSD/ Ergonomic	awkward postures, force, repetitive motions,
Safety	housekeeping, inadequate machine guarding, material handling and exposure to energy sources, etc.
Psychosocial	Harassment, stress, violence, workload etc.

4. Identify current controls implemented using the hierarchy of controls.
 - Elimination (stop what is creating the hazard)
 - Substitution (replace with something less likely to harm or damage)
 - Engineering (placing a barrier between the worker and hazard, retooling)
 - Awareness (warn workers about the existence of a hazard)
 - Administrative (training, procedures, supervision, practices)
 - Personal Protective Equipment (equipment worn by the worker to protect themselves against the hazard)

Step 2) Assess the Hazard

- 2.1. Assess the hazard. Evaluate the extent to which the hazard is likely to cause loss of life, permanent disability or serious injury, as well as, the probability of occurrence and frequency using the designated hazard risk assessment form.
- 2.2. Consider the frequency of the task being completed:

Value	Frequency of Task
1	Continuous
2	Frequent (daily)
3	Occasional (once per week)
4	Unusual (once per month)
5	Rare (few per year)
6	Very Rare (yearly or less)

2.3. Consider the likelihood of the hazard leading to an injury or loss based on current controls or history of incidents occurring:

Value	Likelihood of Occurrence
1	Very Likely (has happened/is expected)
2	Likely (probable- it could happen)
3	Rare (seldom but possible)
4	Very Rare (very seldom but possible)
5	Very Unlikely (slight possibility)
6	Practically Impossible

2.4. Probability is automatically calculated based on Frequency of task and likelihood of occurrence.

Likelihood of Occurrence

		1	2	3	4	5	6
Frequency of Task	1	A	A	B	C	C	D
	2	A	B	B	C	D	D
	3	B	B	C	D	D	D
	4	B	C	C	D	D	E
	5	C	C	D	D	E	E
	6	C	D	D	E	E	E

Value	Probability
A	Common or Repeating Occurrence
B	Known to Occur, or "it has happened"
C	Could Occur, or "I've heard of it happening"
D	Not Likely to Occur
E	Practically Impossible

2.5. Determine the consequence/severity of the potential injury/loss

Value	Consequence/Severity of Injury/Loss
1	Fatality or permanent disability, significant loss
2	Serious injury or illness with lost time or other loss
3	Moderate injury or illness without lost time, or other loss
4	Minor injury or illness without lost time, or other loss
5	No injury or illness, lost time or other loss

2.6. Risk is calculated from the probability and severity

		Probability				
		A	B	C	D	E
Consequences	1	1	2	4	7	11
	2	3	5	8	12	16
	3	6	9	13	17	20
	4	10	14	18	21	23
	5	15	19	22	24	25

The following classification system will be used to assess the level of risk for all hazards:

Risk Value	Risk Rating	Description
1-6	A (major)	high risk, danger of death or permanent disability
7-15	B (moderate)	medium risk, non-life-threatening injury or illness
16-25	C (minor)	low risk, slight injury or illness

Step 3) Identify any Recommended Additional Controls

Identify further controls needed such as procedures, signage, training or other measures needed to eliminate or control the hazards using the hierarchy of controls (if required). This may require changes to people factors, equipment, materials, procedures, tools, systems or processes.

Step 4) Identify legislative and standard (i.e. Canadian standards) References

Identify any legislative, standard or guideline requirements or references and populate the legislative reference column.

- Occupational Health and Safety Act and its regulations
- Canadian Standards Association
- Ministry of Labour, Immigration, Training and Skills Development Guidelines

Step 5) Evaluate the Effectiveness of Additional Controls

Validate the analysis. Implement the additional required controls, if any, and then validate the analysis by observing the task in operation. Make sure that new hazards have not been introduced. Get feedback from the employees performing the job or a representative to see how the hazard controls work. Redo the hazard assessment with the new controls implemented (change in likelihood is most likely impacted). Severity of injury does not change with controls unless it is eliminated or substituted.

Some controls can include:

- Preventative maintenance
- Existing procedures or policies – e.g. universal precautions, safe lifting protocol
- Training
- Personal Protective Equipment – (i.e. gloves)
- Job rotation
- Engineering
- Pre-shift inspection

Tips while conducting a hazard assessment

A hazard analysis should involve the workers who perform the job as well as their managers. Health and safety specialists may also participate. People familiar with the job should be asked about events that may affect normal operations. Equipment breakdowns, shift changes, or other intermittent events may lead to a sequence of steps different from the one being analyzed. You are demonstrating that the workers have a say in their job by including their feedback and therefore, are more likely to get buy-in to the safe work procedures that are implemented.

Explain the purpose of the hazard analysis to ensure full co-operation and participation of the employee. Assure the employee that the purpose is to make the job safer and not an evaluation of their work performance.

Observe jobs during normal working hours and situations. For example, if the job is normally done on the night shift, perform the analysis at night.

Resources that could be used in conducting a hazard assessment:

- Legislation
- Standards
- Existing practices and procedures
- Industry best practices

- Normal and abnormal operations
- Previous accident reports
- Physical inspection of the workplace
- Brainstorming – “ask what if...”
- Employee knowledge – unsafe conditions, known hazards

ROLES AND RESPONSIBILITIES

The University, managers and supervisors are responsible for enforcing this procedure and ensuring that hazard assessments are completed and updated as required.

TRAINING

All Victoria University employees will be trained on the requirement to report hazards. All employees required to conduct hazard analyses will be trained in this procedure.

EVALUATION

An evaluation of the hazard assessment will be done by the JHSC on an annual basis.

FORMS

Hazard Analysis Worksheet
Hazard Reporting Form

RELATED PROCEDURE

Health and Safety Responsibilities

REFERENCE MATERIALS

Occupational Health and Safety Act

Distribution to: All Managers, Joint Health and Safety Committee	Document to be posted: NO
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Hazard Report Form

Name of person reporting hazard: _____
Department : _____ Working Location: _____
Reported to: _____ Date of Report: _____

Location of hazard concerns:

Please describe hazard concern/safety issue:

If this is a repeat issue, whom have you reported to before:

Supervisor/Health and Safety

Officer: Rate hazard class using criteria listed below:

"A" (major)	High risk (immediately dangerous to life and health)
"B" (moderate)	Medium risk (medium term potential for non-life threatening injury)
"C" (minor)	Low risk (long term potential for slight injury or illness)

Corrective actions to be taken and timeline:

Follow up action required:

Person responsible for follow up action: _____

Date finalized: _____

Signature of person reporting hazard:

Signature of Unit Head:

Original to: Unit Head when all the recommendations are completed
Copies to: Department Manager and JHSC