Hazard and Risk Assessment Guide

Safety legislation in Canada (Occupational Health & Safety Act, Sec. 25) entails employers to do everything that is reasonable to ensure their workers have a healthy and safe workplace. The first step to ensuring this safe working environment includes a hazard assessment.

And although safety equipment and protocol is improving, in Canada in 2012, the most recent year for official statistics from Association of Workers’ Compensation Boards of Canada, there were 977 workplace-related fatalities and 245,365 workplace injuries. These numbers indicate that vigilant hazard assessment protocol remains as important than ever.

Follow the guide below to conduct hazard assessments of locations where employees will be working, and to highlight methods that contain that risk with the most practicable solution taking into account cost, time, and effort against the risk. Attached to this guideline is a worksheet for your own hazard assessment.

Reference will be made to the worksheet within the steps in the guideline, so be sure to print these both out before your hazard assessment!

How to Conduct a Hazard Assessment

**Step 1: Gather a Team**

Start out by gathering an assessment team comprised of people in different positions. This will help avoid any blind spots in your assessment. This team should include your operational health and safety officer, or a person in the organization with a blend of skills and experience in the work activities being assessed.

**Step 2: Organize Your Assessment by Geography or Position Rank**

Once your team has been assembled, identify how you would like to organize your hazard assessment. This is normally done by geography or worker position rank. If your workers normally only work in one or two locations, organizing your assessment by rank is useful. If you have workers spread out over varied locations, organizing your assessment by geography would probably be the most successful. Determine this organization with your team, and keep to it during your whole assessment.

Print out a new hazard assessment worksheet for each location or worker position being assessed. Write each location or position being assessed at the top of the worksheet.
Step 3: List Work Activity For Each Location or Worker Position

Assess your work site and determine all the activities that may be happening on the location. Be sure to consider all employees and contract workers. If your focus is position based, be sure to consider all duties that particular worker may have - including various locations they may go to during their shift. If a particular work activity is complex, such as operating a piece of machinery, it is best to break down the activity into smaller parts (ex: operating a van can be broken down into driving in traffic, loading, unloading, backing up, and fueling).

List these activities in the first column of your worksheet.

Step 4: Identify the Hazards Associated With Each Work Activity

Hazards have the potential to cause injury, illness or harm, which include physical, chemical, biological, and psychosocial factors. Hazards may be people, the environment, geographical areas, or weather conditions.

There are 6 main classifications of workplace hazards: Safety Hazards, Biological Hazards, Physical Hazards, Ergonomic Hazards, Chemical Hazards, and Work Organization Hazards.

Safety Hazards are unsafe working conditions, such as anything that can cause slips, trips, or falls, like ice or cords across the ground. Biological Hazards include exposure to harm or disease associated with working with animals, people, or infectious plant materials. Physical hazards can be any factors within the environment that can harm the body without necessarily touching it. Ergonomic Hazards occur when the type of work, body positions and working conditions put a strain on your body. Chemical Hazards are present when a worker is exposed to any chemical preparation in the workplace in any form (solid, liquid, or gas). Work Organization Hazards are stressors that cause stress or strain in the worker’s overall wellbeing. Go through each category and identify if there are any hazards that the worker faces in each of these categories.

Some questions to help with your identification of hazards in each category are as follows:
Hazard and Risk Assessment Guide

Safety Hazards

What equipment or materials are involved in this activity and how may it contribute to hazards?  
Are there any blind spots or poorly lit areas in the work space?  
Are walking and driving paths clear and free of obstructions?

Biological Hazards

Are workers exposed to living things or substances produced by living things that can cause illness; through inhalation, ingestion or absorption?  
Is there proper disposal of biological hazards available?  
Are all workers that are dealing with those substances trained or certified in handling?

Physical Hazards

Are there any temperature extremes that could affect workers, equipment, or materials?  
Are workers exposed to any radiation?  
Are workers working at times of day that could affect vision?

Ergonomic Hazards

Can injury or strain arise from the design and organization of a worker’s work space?  
Are workers subjected to vibration of any kind?  
Do workers have to lift or move heavy objects frequently?

Chemical Hazards

Are workers exposed to anything that can be inhaled, ingested or absorbed into the body?  
Are all chemicals labeled and classified properly?  
Are all workers that are dealing with chemicals trained or certified in handling those specific chemicals?

Stress or Work Organization Hazards

Are workers at risk from threats or violent attacks from the public?  
Are individuals at risk from bullying or aggression from other employees within the company?  
Are tasks evenly distributed to prevent one individual from experiencing work overload?

Write all hazards in the second column of the worksheet beside the associated work activity.
Step 5: Assess the Risk Associated with Each Hazard

Risk is the likelihood that a hazard will have an adverse outcome with a consideration of how bad the outcome is likely to be. Risk should be assessed on scales of severity and likelihood.

Severity should be based on the most predictable consequence if the hazard were to occur. Severity can be ranked on a scale of Low, Medium, High, and Very High.

- Low = No or minor injury that may require some first aid
- Med = Medical treatment with no lost time. Minor damage to equipment and/or property
- High = Injury that requires significant lost work time for the worker, or significant equipment and/or property damage
- Very High = Permanent disability or fatality for the worker or major equipment and/or property damage

Likelihood is the probability of an event occurring. Wherever possible, base likelihood of hazards upon frequency of previous occurrences. Likelihood can be ranked on a scale of Low, Medium, High, and Very High.

- Low = Exposure to the uncontrolled hazard is unlikely to occur
- Med = Exposure to the uncontrolled hazard could occur
- High = Exposure to the uncontrolled hazard may occur often
- Very High = Exposure to the uncontrolled hazard will occur.

Once the Severity and Likelihood are determined, the overall Risk should be determined as Low, Medium, High, or Very High. Please see the diagram below:
Write the rank of severity, likelihood, and overall risk in the third column of your worksheet. Please note, if the overall rank of the work activity is ranked as Very High, immediate action should be taken to control that hazard before that work activity continues.

Step 6: Implement Appropriate Measures to Control Hazards

After identifying possible hazards and their associated risks to employees working alone in your assessment area, it is time to identify appropriate measures to control those hazards.

It is a good practice to determine what the most practicable solution would be, taking into account cost, time, and effort against the level of risk. Those risks determined to have high likelihood or high severity would warrant more money, time, and effort to reduce those risks.

Some possible risk reduction controls could be:

- Creating a detailed plan for staff routes
- Using GPS tracking
- Creating a system for flagging potentially aggressive clients if doing home visits
- Educating staff on how to minimize risks (such as knowing how to put tires on cars in icy driving conditions)

Create Your Own Hazard Assessment

Using the hazard assessment sheet provided, it is time to analyze the hazards and risks for employees working alone in your company. With your new hazard assessment team, decide on an organization method for working through hazards. You may choose to analyze hazards based on geography if you have multiple locations, or you may base it on worker position. If you have many workers in multiple locations, you may decide to instigate both methods - worker rank within each location.

Following along the worksheet, assess each activity associated with that location or worker position. Assess the hazards and risks associated, and finally determine the corrective measures to put into place. Once you have done this, you have succeeded in the first step towards a healthier and safer working environment for your employees! Congratulations!
About SafetyLine Lone Worker

**Effective 24/7 monitoring without manual procedures, call centers, or costly devices.**

SafetyLine Lone Worker is a cloud-based safety monitoring solution for your people working alone. We work with you to develop a complete safety network using your existing equipment, so workers can check-in, and supervisors can monitor, locate and respond to workers, from any device, anywhere, at any time.

Workers will regularly check-in throughout their shifts using any of their current devices – including smartphone, satellite device, or pay-phone. If a worker is in distress or misses a check-in, SafetyLine will start notifying their supervisors, who will get calls by phone, text messages, and email.

Once the supervisor gets a call they will have access to full information about the worker in distress, including:

• Personal profile of worker
• Worker check-in history
• Voice messages left by worker
• GPS location
• Supervisors will also be prompted to follow each of your company’s Emergency Response Procedure steps.
• SafetyLine logs all events, and reports can be created on demand online.

SafetyLine’s staff will consult with you to setup the most appropriate working alone program for your needs, and your people will get training and ongoing support – *and that’s just the bare bones.*

**Call SafetyLine to schedule a demo at 1-888-WRK-ALNE or email us at info@safetyline.ca**
Hazard Assessment
Use this worksheet when conducting your hazard assessment of each location or position of worker, and file with your written safety plan when complete.

**Company Name:**

Date:

Location of Assessment:

Position Being Assessed:

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<th>Work Activity</th>
<th>Hazards</th>
<th>Risk Rating</th>
<th>Method to Control Hazard/Risk</th>
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