



Hazard Management Tool

Developed by the Workplace Safety and Insurance Board in collaboration with the Health and Safety Ontario members:

- Infrastructure Health and Safety Association
- Public Services Health & Safety Association
- Workplace Safety North
- Workplace Safety & Prevention Services

Introduction

The purpose of this *Hazard Management Tool* is to provide workplaces with a step-by-step approach to recognize, assess and control hazards and monitor the ongoing effectiveness of controls.

There are many hazard and risk assessment tools available. If you already have one in place, comparing your tools to this tool will be helpful when considering modifications or improvements. For workplaces that do not have a hazard assessment tool, using this tool will help you get started.

The information in this tool is generic and not targeted to any specific type of workplace, industry sector or work task. It is helpful to keep in mind that in Ontario the leading causes of lost time injuries and fatalities are related to:

- Musculoskeletal Disorders (Strains and Sprains)
- Motor Vehicle Incidents
- Falls
- Contact with Machinery

The Occupational Health and Safety Act, Ontario's law that governs health and safety in the workplace, establishes legal duties and minimum responsibilities for employers, supervisors and workers. If these duties are not followed, injuries, illness or even the death of a worker can result.

The legal duties and responsibilities of employers, supervisors and workers overlap and complement each other. Employers have a duty to actively ensure workers are safe. Every worker who has a health and safety concern has a duty to report the situation to their supervisor or employer. Workers may also report these concerns to their health and safety representative. Once a hazard has been identified, the employer and supervisor have a duty to assess and eliminate any potential harm for workers.

The Hazard Management Tool template is shown in the page below. Instructions on how to complete the tool are explained in the pages that follow.

HAZARD MANAGEMENT TOOL

Risk Evaluation Chart

		Probability of Injury		
		High	Medium	Low
Severity of Injury	Major	High	High	Medium
	Moderate	High	Medium	Low
	Minor	Medium	Low	Low

Name of Firm:	Assessment Date:	
Person Completing:	JHSC/Representative Review Date:	
Work Area/Department:	Sr. Manager Review Date:	Sr. Manager Signature:

RECOGNIZE			ASSESS			CONTROL			EVALUATE		
A	B	C	D	E	F	G	H	I	J	K	L
What activity can cause injury or illness? • Job Titles • Work Activities	What hazard groups (categories) can cause injury or illness? • Physical • Biological • Chemical • MSD • Psychosocial • Safety	What potential hazards can cause the worker injury and illness?	How likely are the hazards to cause injury or illness? • High • Medium • Low	How serious could the harm be? • Major • Moderate • Minor	What is the risk level for this hazard? • High • Medium • Low (Use the answers from D & E and plot on the above risk evaluation chart)	What legal requirements / standards apply to the identified hazards, work processes, work activities?	What is currently being done to eliminate or control the hazard?	What future actions are needed to eliminate or control hazards?	How likely is the hazard to cause injury or illness now? • High • Medium • Low	How serious could the harm be now? • Major • Moderate • Minor	What is the risk level for this hazard now? • High • Medium • Low (Use the answers from J & K and plot on the above risk evaluation chart)
<i>Service bay techs working under cars</i>	<i>Physical</i>	<i>Car falling off hoist/car jacks</i>	<i>Medium</i>	<i>Major</i>	<i>High</i>	<i>OHSA TSSA Industrial Regulation</i>	<i>Safe Operating Procedures</i> <i>Maintenance on hoist</i>	<i>Increase Inspections, revise maintenance & Safe Operating Procedures, Revise Worker training</i>	<i>Low</i>	<i>Major</i>	<i>Medium</i>

STEP 1 - RECOGNIZE HAZARDS (Columns A,B,C)

Column A – What activity can cause injury or illness?

Identify what job titles, work activities, and work areas to assess. Remember to think about tasks that may be performed in normal and abnormal or emergency situations.

Column B – What hazard groups (categories) can cause injury or illness?

A hazard is a condition, practice or substance with the potential for causing loss, injury or harm to life, health or property.

Hazards can be grouped as:

- Physical
- Chemical
- Biological
- Musculoskeletal
- Psychosocial
- Safety

The following factors contribute to creating hazards:

- People (training, coaching, communication, education, hygiene practices, etc.)
- Equipment (protective equipment, repair and maintenance, adequate clearance)
- Materials (correct use, adequate supply, repair and maintenance, proper storage)
- Environment (noise, temperature, air quality, lighting, physical layout and structure, housekeeping)
- Process (work design, flow, reporting requirements, work practices, policies and procedures)

Review the following workplace information to help identify hazards in your workplace:

- Worker comments, feedback and reports of concerns
- Workplace inspection records
- Incident investigation reports, First Aid reports
- Supervisor's inspection reports and shift notes
- Material safety data sheets (MSDSs)
- Hazard alerts or bulletins
- Regulations, technical standards and codes (e.g. building code, fire code)
- Industry best practices
- Manufacturer's instructions and specifications
- Established occupational exposure limits
- Human resources related data such as absentee records and turnover rates.

You may need to consult with a health and safety expert where specialized expertise is needed. It may be necessary to take measurements or samples to determine if a hazard is within recommended limits.

Column C – What potential hazards can cause the worker injury or illness?

Identify what potential hazards can cause injury or illness to the workers if exposed to each hazard.

For example:

- exposure to chemicals
- fall from heights or ladders
- coming into contact with moving parts of machinery
- exposure to noise
- exposure to heat/cold extremes
- exposure to situations where harassment and violence may occur.

WORKSHEET – STEP 1: Recognize

RECOGNIZE		
A	B	C
<p>What activity can cause injury or illness?</p> <p>List:</p> <ul style="list-style-type: none"> • Job Titles • Work Activities 	<p>What hazard groups (categories) can cause injury or illness?</p> <p>Consider:</p> <ul style="list-style-type: none"> • Physical • Chemical • Biological • Musculoskeletal Disorders (MSD) • Psychosocial • Safety 	<p>What potential hazards can cause the worker injury or illness?</p> <p>Consider:</p> <p>Potential/actual exposures to hazards under each hazard group identified in column B.</p>
<p>Service Bay Technicians</p> <ol style="list-style-type: none"> 1. Working with chemicals 2. Working with hand tools 3. Working with compressed air 4. Pedestrian activities in parking lot 5. Interaction with other workers and customers 	<p>Hazard Groups present</p> <ol style="list-style-type: none"> 1. Chemical hazards present 2. MSD hazards present 3. Safety hazards present 4. Physical hazards present 5. Psychosocial hazards present 	<ol style="list-style-type: none"> 1. Chemical: Automotive lubricants, degreasers and parts cleaners. 2. MSD: Pushing, pulling, lifting, bending, awkward body positions, grasping parts and tools. 3. Safety: Exposure to compressed air. 4. Physical: Potential contact with moving vehicles while walking in parking lot to retrieve customer vehicles. 5. Psychosocial: Interactions with coworkers, supervisors and customers.

STEP 2 - ASSESS HAZARDS (Columns D,E,F)

Column D – Probability: How likely is the hazard to cause injury and illness?

Estimate using high, medium or low, how likely or probable it is that the hazard will cause injury or illness or damage to property.

Consider:

- nature of exposure
- time spent exposed
- number of workers exposed
- how often they are exposed
- historical data

PROBABILITY RATING	
High	Injury or illness due to exposure to this hazard is very likely
Medium	There is a chance that the hazard will cause injury or illness
Low	The hazard will probably not cause injury or illness

Column E - Severity: How serious could the harm be?

Estimate how serious the injury or illness could be using a scale of major, moderate or minor.

SEVERITY RATING	
Major	The hazard could cause fatal or serious injury, illness and/or damage, resulting in permanent or long term disability and/or significant loss
Moderate	The hazard could cause moderate injury, illness and/or property damage resulting in lost time
Minor	The hazard could only cause minor injury or illness without lost time or other loss

Column F - What is the risk level for this hazard?

Probability of injury + Severity of injury = Risk

Plot, using the Risk Evaluation Chart below, the Probability of Injury from Column D and the Severity of Injury from Column E. Enter the result in Column F. This helps determine the level of risk for each hazard. Prioritize so that the hazards with the highest risk are controlled first.

Risk Evaluation Chart

		Probability of Injury (Column D)		
		High	Medium	Low
Severity of Injury (Column E)	Major	High	High	Medium
	Moderate	High	Medium	Low
	Minor	Medium	Low	Low

WORKSHEET – STEP 2: Assess Hazards

ASSESS		
D Probability:	E Severity:	F Risk:
How likely is the hazard to cause harm? <ul style="list-style-type: none"> • High • Medium • Low 	How serious could the harm be? <ul style="list-style-type: none"> • Major • Moderate • Minor 	What is the risk level for this hazard? Use Risk Evaluation Chart to determine rating.
Chemical exposure potential 1. Low	1. Moderate	1. Low
Working with hand tools 2. Medium	2. Moderate	2. Medium
Working with compressed air 3. Low	3. Major	3. Medium
Pedestrian activities in parking lot 4. Low	4. Major	4. Medium
Interaction with other workers and customers 5. Low	5. Moderate	5. Low

STEP 3: CONTROL HAZARDS (Columns G, H, I)

Column G – What legal requirements and/or standards apply to the identified hazards, work processes, work activities?

Identify the legal requirements and standards as they apply to the identified hazards, work processes and activities.

Ensure that all legislative authorities and standards/guidelines are consulted. This will ensure that what should be in place is known to the Managers, Supervisors and Workers. If the standards are not being met, then the changes can be put into the Hazard Assessment Tool under Column I for future consideration. Legislation/Regulations/Standards are subject to change from time to time and should always be consulted during this review process.

Column H – What is currently being done to eliminate or control the hazard?

Identify what control measures are currently in place.

Column I – What future actions are needed to eliminate or control hazards?

Ideally, controls should be designed to eliminate a worker's exposure to the hazards. Make sure that hazard controls do not create new hazards. You should work through the hierarchy of controls:

- Eliminate the hazard
- Substitute with other materials, processes or equipment
- Use engineering controls to prevent access, limit exposure, or reduce energy available that may harm workers
- Increase awareness about hazards and controls through for example, warning systems, alarms and signs
- Use administrative controls such as training, and procedures
- Use personal protective equipment, and ensure appropriate selection, use and maintenance of it.

Remember controls like personal protective equipment only control the exposure to the hazard not the hazard itself.

WORKSHEET – STEP 3: Control

CONTROL		
G	H	I
References What legal requirements / standards apply to the hazard?	What is currently being done to control the hazard?	What future actions are needed to eliminate or control the hazard?
Legal Requirements: <ul style="list-style-type: none"> • Employment Standard Act • Fire Code, Fire Prevention and Protection Act • Electrical Safety Code 	<ul style="list-style-type: none"> • Safe Operating Procedures in place • MS prevention training • Workplace Violence risk assessments and training 	<ul style="list-style-type: none"> • Annual review of Safe Operating Procedures • Ensure hazard information and PPE is identified to workers • Continue to question if it is possible to eliminate/substitute the use of some chemicals currently used?
Occupational Health and Safety Act: <ul style="list-style-type: none"> • Industrial Regulations • MOL adopted Guidelines 	Equipment designed by engineer and CSA approved	Equipment designed by engineer and CSA approved
Technical Standards Safety Authority	Certified Operators of equipment	Continue to certify all operators that work with lifting equipment
	Trades personnel only working on vehicles	Continue qualifying all personnel to a trade certification level

STEP 4 - EVALUATE HAZARDS (Columns J, K, L)

Column J – How likely is the hazard to cause injury or illness now?

Shortly after implementing controls, you should reassess the hazard with the control measures in place to determine if the hazard has been eliminated or adequately controlled.

Using the same method as in Column F, plot the answers from columns J & K on the Risk Evaluation Chart to determine the risk level in Column L.

COMMUNICATION AND ONGOING MONITORING OF HAZARDS AND CONTROLS

Implementing controls for hazards is not the end of the journey. Communication is important for keeping everyone involved informed and up-to-date. Ensure workers know the hazards that were identified, the risks associated with the hazards and the measures to be used to eliminate or control the hazards.

Monitor for continuing effectiveness of controls and reduce the risk further as better control measures become available. Look for changes in the workplace that may require adjustments in the methods of controlling hazards. At the very least review all your hazards annually.

Risk Evaluation Chart

		Probability of Injury (Column J)		
		High	Medium	Low
Severity of Injury (Column K)	Major	High	High	Medium
	Moderate	High	Medium	Low
	Minor	Medium	Low	Low

WORKSHEET – STEP 4: Evaluate

EVALUATE		
J	K	L
How likely is the hazard to cause injury and illness now?	How serious could the harm be now?	What is the risk level for the hazard now?
Chemical exposure potential 1. Low	1.Low	1.Low
Working with hand tools 2. Medium	2.Moderate	2.Low
Working with compressed air 3. Low	3.Low	3.Low
Pedestrian activities in parking lot 4. Low	4.Moderate	4.Low
Interaction with other workers and customers 5. Low	5.Low	5.Low

Risk Evaluation Chart

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HAZARD MANAGEMENT TOOL

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Person Completing:	JHSC/Representative Review Date:	
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<i>Service bay techs working under cars</i>	<i>Physical</i>	<i>Car falling off hoist/car jacks</i>	<i>Medium</i>	<i>Major</i>	<i>High</i>	<i>OHSA TSSA Industrial Regulation</i>	Safe Operating Procedures Maintenance on hoist	Increase Inspections, revise: maintenance & Safe Operating Procedures Worker	<i>Low</i>	<i>Major</i>	<i>Medium</i>

RECOGNIZE			ASSESS			CONTROL			EVALUATE		
A	B	C	D	E	F	G	H	I	J	K	L
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								<i>Training</i>			