



Hazard Assessment and Control:

a handbook for Alberta
employers and workers



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Note to the reader

The information provided in this handbook is solely for the user's information and convenience and, while thought to be accurate and functional, it is provided without warranty of any kind. If in doubt, please refer to the current edition of the *Occupational Health and Safety Act*, Regulations and Code. The Crown, its agents, employees or contractors will not be liable to you for any damages, direct or indirect, arising out of your use of the information contained in this handbook.

This handbook is current to March 2015. The law is constantly changing with new legislation, amendments to existing legislation, and decisions from the courts. It is important that you keep up with these changes and keep yourself informed of the current law.

This handbook is for general information only and may be applicable to assist in establishing a compliant health and safety system at your work site. However, it is critical that you evaluate your own unique circumstances to ensure that an appropriate program is established for your work site. It is strongly recommended that you consult relevant professionals (e.g. lawyers, health and safety professionals and specialists) to assist in the development of your own program.

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Glossary of terms

Controls

Actions taken to eliminate or lower risk at work. Methods of control fall into one of three categories: engineering, administrative or personal protective equipment.

Hazard

A situation, condition or thing that may be dangerous to the safety or health of workers.

Hazard assessment

A written process to recognize existing and potential hazards at work before they cause harm to people or property.

Hierarchy of controls

The order control methods are to be considered/ applied, as outlined in Alberta's Occupational Health and Safety Code, Part 2, Section 9(1–5).

Job

The position a person has in an organization (e.g. electrician, chef, truck driver, computer technician, administrative assistant).

Near miss (close call)

An incident in which injury did not occur but which could have caused an injury or loss under slightly different circumstances.

Occupational health and safety management system

An employer's formal approach to managing health and safety in the workplace.

Risk

The chance of injury, damage or loss.

Safe work practice

General do and don't guidelines for an activity or work process.

Safe work procedure

A written, step-by-step instruction for how to safely perform a task from beginning to end.

Tasks

The activities a worker does as part of their job.

Work types

The nature of the work an individual does (e.g. pipefitting, food prep., office work, vehicle/equipment operation).

Worker

A person engaged in an occupation.

Introduction

Hazard assessments and controls help build safe and healthy workplaces. They are at the core of every organization's occupational health and safety management system.

The hazard assessment and control process provides a consistent approach for employers and workers to identify and control hazards in the workplace. It allows everyone to focus their efforts in the right areas, and to develop worker training, inspections, emergency response plans, etc. specific to the hazards at their work sites.

Alberta's Occupational Health and Safety legislation requires employers to conduct hazard assessments, and to either eliminate the hazards identified or put controls in place to protect against them.

There are many ways to do a hazard assessment. This handbook provides a starting point, but employers should customize the process based on their business operations.

The step-by-step processes outlined in this handbook are intended to help employers and workers control workplace hazards. Hazard assessments should reflect the specific needs of the operation.

Alberta's Occupational Health and Safety legislated requirements (the law) are highlighted throughout this document. These are the minimum requirements every work site must meet. Many businesses exceed these minimum standards. This guide also includes practices, tools and forms to assist in meeting or exceeding the minimum requirements.

Not all requirements under the *Occupational Health and Safety Act*, Regulations and Code are discussed in this handbook. This guide is not intended to be legal advice, nor is it a definitive guide to the legislation. Review the legislation thoroughly and consult a lawyer if you have any specific legal issues. In case of inconsistency between this resource and the Occupational Health and Safety legislation or any other legislation, the legislation will always prevail. For more detailed information, refer to the *Occupational Health and Safety Act*, Regulations or Code, and the Occupational Health and Safety Code Explanation Guide.

Overview

Overview

Why do a hazard assessment?

No matter the size or type of business, there are situations, conditions or things that may be dangerous to the safety or health of workers.

Possible hazards



falling objects



slippery surfaces



sharp equipment



fatigue



a poorly designed workspace
(awkward positioning)



icy road conditions

It's the employer's responsibility to ensure the workplace hazards are identified and eliminated or controlled so workers stay healthy and safe on the job.

Examples of elimination and control



wear personal protective equipment



mop up spills



use equipment guards



take scheduled breaks



install an ergonomic workstation



take winter driver training

Hazard assessments are a core part of every occupational health and safety management system. They allow the employer to focus their efforts in the right areas, and develop worker training, inspections, emergency response plans, etc., specific to the hazards on their work site(s).

There's another good reason for an employer to do hazard assessments. **It's the law.**

What are the benefits of hazard assessment and control?

Hazard assessments identify hazards so they can be eliminated or controlled before someone gets hurt. The process of conducting hazard assessments and following through by introducing controls may also:

- **Inspire improvements in day-to-day operations** (e.g. maintenance, work procedures, worker training, process and design, purchasing, housekeeping). Workers can see how doing simple things like mopping up spills or picking up debris is more important than they might have thought. They become more proactive.
- **Show workers they are important and valued, and demonstrate employer commitment.** Feeling valued can inspire participation and ownership of workplace health and safety.
- **Focus attention on workplace health and safety.** Hazard assessments point to specific areas in need of improvement. They get people thinking — and talking — about health and safety.
- **Result in a more consistent, efficient and effective workplace.** One can expect that lowering the risk of a health and safety incident also lowers the number of productive hours lost to worker illness and/or injury.
- **Lower operating costs.** Fewer incidents means fewer claims filed with the Workers' Compensation Board. Fewer insurance claims means lower annual premiums.

What are some of the challenges of conducting hazard assessments?

Not all workplace hazards are obvious to everyone. Individuals bring their own experience and judgement to the task of identifying hazards.

The culture (attitudes and behaviours) of a workplace or an entire industry can build up a level of risk tolerance. Risk-taking may be an accepted part of the job. Workers may become complacent and begin to lower their guard over time, as high-hazard activities become familiar. Workers may even disregard the hazardous nature of a task because they take pride in the risky nature of their work.

New workers may simply not have the experience to identify the hazards at their work site, or may willingly take risks in an attempt to prove themselves.

More experienced workers may have the most difficulty changing their behaviour. They are sometimes more likely to dismiss occupational health and safety initiatives as unnecessary.

What are the common types of hazard assessments?

There are many ways to do a hazard assessment. Employers should customize the process based on their business operations. Two common types of hazard assessments are formal and site-specific. Formal and site-specific hazard assessments may work separately, but are most effective when they are used together.

A **formal hazard assessment** takes a close look at the overall operations of an organization to identify hazards, measure risk (to help prioritize hazards), and develop, implement and monitor related controls. Worker jobs or types of work are broken down into separate tasks. Formal hazard assessments are detailed, can involve many people, and will require time to complete.

A **site-specific hazard assessment** (also called **field-level**) is performed before work starts at a site and at a site where conditions change or when non-routine work is added. This flags hazards identified at the location (e.g. overhead powerlines, poor lighting, wet surfaces, extreme temperatures, the presence of wildlife), or introduced by a change at the work site (e.g. scaffolding, unfamiliar chemicals, introduction of new equipment). Any hazards identified are to be eliminated or controlled right away, before work begins or continues.

More information on formal and site-specific hazard assessments follows, with step-by-step guidelines on how you might perform each type.

Formal hazard assessments

Formal hazard assessments

A **formal hazard assessment** involves a detailed look at an organization's overall operations. It's meant to identify hazards, measure risk (to help prioritize hazards), and develop, implement and monitor related controls. The end goal is to prevent work-related injuries and illnesses.

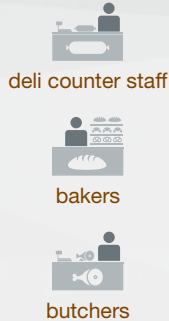
Formal hazard assessments are not a quick fix. It takes commitment and resources (including time) to complete the full process. The investment is rewarded many times over with improved health and safety for everyone in the workplace.

Organization



supermarket

Identify
jobs/types of work



deli counter staff

bakers

butchers



grocery clerks



buyers

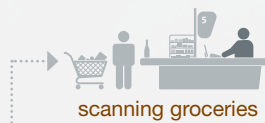


baggers



inventory managers

Identify
tasks
for each job/
type of work



scanning groceries



bagging groceries



stocking shelves



processing payment



assisting customers



sweeping/cleaning up spills

Identify
possible hazards
for each task



lifting heavy loads



slipping/tripping hazards



working at heights



falling objects



chemicals



working alone

Formal hazard assessments

Who should participate?

A team approach is best. Different people have different ways of seeing things. Workers that do the job may have valuable insights that should not be overlooked.



An employer must involve affected workers in the hazard assessment and in the control or elimination of the hazards identified.

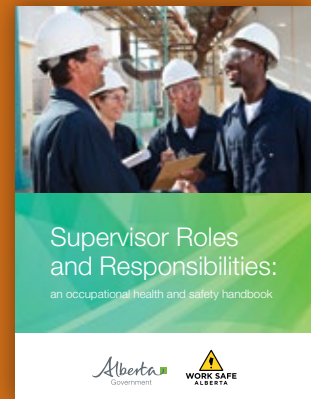
Occupational Health and Safety Code, Part 2, Section 8(1)

The employer's representative (e.g. managers and supervisors) should lead the hazard assessment process. They should receive hazard assessment training so they know how to recognize, evaluate and control hazards. They should also understand the job tasks that they will be evaluating, and the experience/skill level of those who are doing the work.

Those workers who are affected should be represented in the hazard assessment process. Workers are the individuals doing the work and are in the best position to provide insight. Affected workers must be given the results of the assessment once it is completed.

Managers should receive hazard assessment training so they know how to recognize, evaluate and control hazards.

[work.alberta.ca/
documents/ohs-best-
practices-BP020.pdf](http://work.alberta.ca/documents/ohs-best-practices-BP020.pdf)



BP020



An employer must ensure that workers affected by the hazards identified in a hazard assessment report are informed of the hazards and of the methods used to control or eliminate the hazards.

Occupational Health and Safety Code, Part 2, Section 8(2)

When should you do a formal hazard assessment?

Ideally, start the formal hazard assessment early on in the development of your organization's occupational health and safety management system. If you already have controls in place, take the time to go back and conduct a formal hazard assessment to ensure all hazards have been identified and existing controls are effective.



An employer must assess a work site and identify existing and potential hazards before work begins at the work site or prior to the construction of a new work site.

Occupational Health and Safety Code, Part 2, Section 7(1)

A formal hazard assessment is the basis for the organization's entire occupational health and safety management system. It outlines the hazards, measures risk (to help prioritize hazards), and points to the necessary control measures. This information can be helpful in other parts of the health and safety management system, such as worker training, safe work procedures and workplace inspections.

Employers will want to keep their health and safety management activities in line with the organization's needs. As the organization's operations expand or changes are made to the way work is performed (i.e. before new work sites are constructed and/or equipment, processes or tasks are introduced), additional hazard assessments are required.



An employer must ensure that the hazard assessment is repeated

- a. at reasonably practicable intervals to prevent the development of unsafe and unhealthy work conditions,
- b. when a new work process is introduced,
- c. when a work process or operation changes, or
- d. before construction of significant additions or alterations to a work site.

Occupational Health and Safety Code, Part 2, Section 7(4)

Even when nothing has changed, hazard assessments should be reviewed periodically to prevent the development of unsafe and unhealthy working conditions.

To meet the Occupational Health and Safety legislated requirements, the date must be recorded on each hazard assessment. This provides a record of the last revision date and may help determine whether or not the document requires an update.



An employer must ensure that the date on which the hazard assessment is prepared or revised is recorded on it.

Occupational Health and Safety Code, Part 2, Section 7(3)

Formal hazard assessments

How do you do a formal hazard assessment?

There are several ways to conduct a formal hazard assessment. What follows is a sample framework for how to proceed.

It's necessary to tailor the process to your organization's specific needs. The size and complexity of business operations will influence your approach. Just make sure the people involved understand the goal, and that they are familiar with the work processes under review and the experience/skill level of those doing the work.

The sample template on page 20 may be helpful when conducting a formal hazard assessment. You will want to customize this template so it applies to your specific work environment.

The process involves several steps. Taking one step at a time can help it go smoothly. Evaluate what works best for your organization and go from there.

THE FORMAL HAZARD ASSESSMENT PROCESS

- 1 Figure out what people do.
- 2 List all work tasks/activities.
- 3 Identify hazards of each task.
- 4 Rank the hazards according to risk.
- 5 Find ways to eliminate or control the hazards.
- 6 Implement the selected controls.
- 7 Communicate the hazards and follow the controls.
- 8 Monitor the controls for effectiveness.
- 9 Review and revise hazard assessment as needed.

STEP ONE

1 Begin by figuring out what people do in the organization.

Start by taking an inventory of all the jobs and/or work types within the organization.

You might develop or reference a list of positions or work types.

For example, in a supermarket, there are:



deli counter staff



bakers



butchers



grocery clerks



buyers



baggers



inventory managers

STEP TWO

2 List all tasks/activities of each job or work type.

From your inventory of all the jobs/work types in the organization, you will compile a list of related tasks for each.

Talk to the workers and spend time watching them work. Record the tasks or activities they do.

For example, a grocery clerk is responsible for:



scanning groceries



bagging groceries



stocking shelves



processing payment



assisting customers



sweeping/
cleaning up spills

Formal hazard assessments

STEP THREE

3 Identify both *health* and *safety* hazards of each task.

Keeping workers healthy and safe involves identifying both health and safety hazards.

- A health hazard is anything that could harm someone's health, either immediately or over time. Examples of health hazards include exposure to things like asbestos, smoke, lead and the sun.
- A safety hazard is anything that could cause injury or damage. Examples of safety hazards include working at heights, lifting heavy objects, and exposure to sharp edges or moving equipment. An injury caused by a safety hazard is usually immediate (e.g. a broken bone, a sprain or a cut).

Safety hazards tend to get our attention in a hurry. When someone falls and breaks their back, for example, everyone takes note. But the effects of health hazards are not always immediate. They can take years to appear. For this reason, health hazards themselves are often overlooked in the hazard assessment process.

A worker who is exposed to the sun on a regular basis may develop skin cancer over time. Early identification of sun exposure as a health hazard can introduce controls to minimize the hazard and safeguard the worker's health.

Workplace hazards by category

Workplace hazards can be grouped into four categories. They may include, but are not limited to:

Physical hazards



lifting heavy loads



repetitive motions



vibrations



slipping/tripping hazards
(poorly maintained floors
or housekeeping)



working at heights



working around
moving equipment/
vehicles



extreme temperatures



poor lighting



working alone



noise



violence

Chemical hazards



chemicals
(battery acids,
solvents, cleaners)



fumes



vapours
(spray paint)



gases
(carbon monoxide)



byproducts/
waste products
from a process

Biological hazards



viruses



fungi



bacteria



moulds



bodily fluids



sewage



animal/
pest waste



pandemic/
influenza

Psychological hazards



harrassment and
bullying



stress



fatigue



shift work

In some situations, the hazard can be a combination of two or more of the above. More than one category of hazard may be present with each task.

Formal hazard assessments

Contributing factors

When thinking about workplace hazards and how to eliminate or control them, consider these four main contributing factors to how hazards impact a workplace and the workers:

People

- Are they well trained/competent in performing the work?
- Are they overtired?
- What motivates them (e.g. speed or quality)?

Equipment

- Is equipment/are tools appropriate for the task?
- Is the equipment properly installed?
- Is the equipment properly maintained?
- Are manufacturer's specifications being followed?

Materials

- What materials are being used?
- Are they being handled, stored and disposed of properly?

Environment

- Where is your work site (e.g. an office, vehicle, field, etc.)?
- Does your work environment introduce any health and safety hazards?

Your workplace may have existing tools and information in place to help identify hazards. Hazard reports, near miss (close call) reports, incident reports, equipment preventive maintenance records, first aid logs and inspections can all be used to update hazard assessments on an ongoing basis.

STEP FOUR

4 Rank the hazards you identified according to risk.

Risk is the chance of injury, damage or loss. Some hazards pose a greater risk than others. By evaluating the risk of the hazards, you can prioritize which hazards to address first. Once you have identified all the hazards of individual tasks, you can evaluate the level of risk that is associated with each hazard.

Although ranking the risk of hazards is not a legislated requirement, doing so can be useful in prioritizing the hazards.

Rank the hazards according to risk. There are various ways to rank hazards and prioritize their controls. It doesn't have to be complicated. The important thing is to be consistent. Be sure to use the same ranking system throughout your organization.

This is a basic approach. Start by asking these three questions:

What could go wrong? (**Hazard**)

How serious could the consequences be? (**Severity**)

How likely is it to happen? (**Likelihood**)

Assign each hazard a number from 1 to 3 to describe **severity**, where:

- 3 It could kill you or cause a permanent disability, today or over time.
- 2 It could send you to the hospital.
- 1 It could make you uncomfortable.

Then...

Assign each hazard a number from 1 to 3 to describe **likelihood**, where:

- 3 It is highly likely.
- 2 It might happen.
- 1 It is unlikely.

Multiply the score of severity and likelihood for each hazard. The hazards with the highest scores pose the greatest risk to workplace health and safety.

Risk matrix

		Severity		
		Make you uncomfortable	Send you to the hospital	Kill you/cause a permanent disability
Likelihood	Unlikely 1	1	2	3
	Might happen 2	2	4	6
	Highly likely 3	3	6	9

Using the above risk matrix, a hazard that ranks a 3 for severity and a 3 for likelihood would score a 9 ($3 \times 3 = 9$). A hazard with a 1 severity and a 3 likelihood would score a 3 ($1 \times 3 = 3$). The hazard that scored 9 in the matrix should be addressed first.

Formal hazard assessments

STEP FIVE

5 Find ways to eliminate or control the hazards, addressing the hazards that pose the greatest risk first.

While all identified hazards must be addressed, ranking the hazards tells you which hazards you should deal with first. Try to eliminate hazards wherever you can. Removing tripping hazards or safely disposing of unwanted chemicals are examples of hazard elimination. If hazards cannot be eliminated, they must be controlled.



If an existing or potential hazard to workers is identified during a hazard assessment, an employer must take measures in accordance with this section to

- a. eliminate the hazards, or
- b. if elimination is not reasonably practicable, control the hazard.

Occupational Health and Safety Code, Part 2, Section 9(1)

Elimination

When elimination of the hazard is not an option, Alberta's Occupational Health and Safety Code (Part 2, Section 9(2-5)) establishes the hierarchy of controls to follow:

FIRST CHOICE

Engineering controls –

control the hazard at the source.



insulate for sound to reduce excessive noise levels



introduce a ventilation system for exhaust



use hoists or trolleys to lift and move heavy loads



use equipment guards



substitute toxic chemicals with something that is non- or less toxic

SECOND CHOICE

Administrative controls –

control the hazard along the path (i.e. between the hazard and workers).



develop safe work practices and procedures



provide training and supervision for workers



limit exposure time by rotating jobs

THIRD CHOICE

Personal Protective Equipment (PPE) –

control the hazard at the worker.



wear cut-resistant gloves



wear hard hats



wear reflective vests



wear eye protection



wear safety harness



wear approved footwear

Combination of controls

If the hazard cannot be eliminated, or controlled by using a single control method, the employer may use a combination of engineering, administrative and personal protective equipment to provide a greater level of worker health and safety.

Formal hazard assessments

STEP SIX

6 Implement the selected controls.

Once you've identified the hazards, ranked the risks and selected the best way to eliminate or control the hazard, you need to follow through with action.

- Have a plan to implement the identified controls and to confirm they are effective.
- Be prepared to introduce temporary controls when more permanent solutions will take time to implement.

As an example, you'll want to provide workers with hearing protection (personal protective equipment) until a sound barrier can be established (an engineering control) to control a noise hazard.

STEP SEVEN

7 Communicate the hazards and follow the controls.

Make sure all affected workers are aware of and understand the hazards and follow/use the controls.

The methods used to communicate the information to the workers will depend on your organization. Some effective methods may include:

- Worker orientation/training sessions.
- Worker mentorship.
- Discussing both the hazards and the controls during safety meetings.
- Using regular internal communication channels (e.g. newsletters, intranet forums).

STEP EIGHT

8 Continue to monitor the controls for their effectiveness.

When we introduce controls, we might end up introducing new workplace hazards. By regularly monitoring and evaluating the controls, confirming workers are following correct procedures, and making sure equipment is appropriate and in good working condition, we can anticipate problems before the health and safety of workers is negatively affected.



eye protection might fog up,
resulting in impaired vision



engineered sound barriers might
have a negative affect on airflow

STEP NINE

9 Review and revise hazard assessments as needed.

The workplace is always changing. To keep workers healthy and safe, employers are required to review an existing hazard assessment and revise it accordingly when a new task, work process, or equipment is introduced, or when there is a significant change to a work site.

Make sure to put the date on it.

It's a legal requirement, but it also helps with record management at your end. You will want to retain up-to-date hazard assessments for the record.

Formal hazard assessment and control (template)

Job/position/work type:		Date of assessment:	
Assessment performed by: (names)		Reviewed/revised:	
Tasks (List all tasks/activities of the job/position)	Hazards (List all existing and potential health and safety hazards)	Severity	Controls (List the controls for each hazard: Elimination, Engineering, Administrative, Personal Protective Equipment)
		Likelihood	
		S x L = R	Date implemented:

Severity: How serious could the consequences be? 3 - It could kill you or cause a permanent disability, today or over time. 2 - It could send you to the hospital. 1 - It could make you uncomfortable.	Likelihood: How likely is it going to happen? 3 - It is highly likely. 2 - It might happen. 1 - It is unlikely.	Risk: Calculate the risk of hazards to prioritize preventive actions. Severity x Likelihood = Risk
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This form is for example purposes only. Completing this form alone will not necessarily put you in compliance with the legislation. It is important and necessary that you customize this document to meet the unique circumstances of your work site. Further, it is essential that this document is not only completed, but is used, communicated, and implemented in accordance with the legislation. The Crown, its agents, employees or contractors will not be liable to you for any damages, direct or indirect, arising out of your use of this form.

See additional sample forms (Appendix 1)

Download a copy at work.alberta.ca/documents/ohs-bulletin-bp018-formal-sample.doc

Site-specific hazard assessments

Site-specific hazard assessments

A **site-specific hazard assessment** (also called **field-level**) is performed before work starts at a site and at a site where conditions change or when non-routine work is added.

Site-specific hazard assessments check for the introduction of any unexpected hazards, or hazards for which additional controls may be needed. **Any hazards identified during a site-specific hazard assessment must be addressed right away, before work begins at the location.**

If a site-specific hazard assessment recognizes a hazard that was overlooked by the formal assessment, the formal assessment should be updated to include it.

Site-specific considerations

Legend

- Location-specific hazards
- Changes at the work site



scaffolding



poor lighting



slippery surfaces



extreme temperatures



introduction of new equipment



unfamiliar chemicals



overhead powerlines



presence of wildlife



Site-specific hazard assessments

Who should participate?

The employer's representative (e.g. supervisors/foremen) should lead the site-specific hazard assessment, and affected workers must be involved.



An employer must involve affected workers in the hazard assessment and in the control or elimination of the hazards identified.

Occupational Health and Safety Code, Part 2, Section 8(1)

Those leading the process should be competent in the task. They should understand the goal of the assessment, the hazards introduced into the environment, and the experience/skill level of those who are working on site.

If hazards are identified, workers will need immediate direction on how to proceed, and elimination of the hazard, or controls must be in place before work begins or continues.



An employer must ensure that workers affected by the hazards identified in a hazard assessment report are informed of the hazards and of the methods used to control or eliminate the hazards.

Occupational Health and Safety Code, Part 2, Section 8(2)

When should you do a site-specific hazard assessment?

A site-specific hazard assessment should be conducted before work begins at a new work site, or if new hazards have been introduced to a familiar work site. In the interest of worker health and safety, it should be repeated as conditions at the work site change.

Make sure you re-assess as required, but don't over do these assessments. When hazard assessments are performed too often, they become an exercise of simply going through the motions. Much of their value is lost through excessive repetition.



An employer must assess a work site and identify existing and potential hazards before work begins at the work site or prior to the construction of a new work site.

Occupational Health and Safety Code, Part 2, Section 7(1)

If the work environment itself is subject to change due to changing conditions such as weather or the arrival of new contractors that will impact the work site (new equipment or processes), a site-specific hazard assessment must be conducted.

Keep the subject of workplace health and safety on everyone's mind. Talk about work site hazards and the controls that have been introduced in regular tailgate meetings or toolbox talks.

Site-specific hazard assessments



An employer must ensure that the hazard assessment is repeated

- a.** at reasonably practicable intervals to prevent the development of unsafe and unhealthy work conditions,
- b.** when a new work process is introduced,
- c.** when a work process or operation changes, or
- d.** before the construction of significant additions or alterations to a work site.

Occupational Health and Safety Code, Part 2, Section 7(4)

To meet the Occupational Health and Safety legislated requirements, the date must be recorded on each hazard assessment.



An employer must ensure that the date on which the hazard assessment is prepared or revised is recorded on it.

Occupational Health and Safety Code, Part 2, Section 7(3)

How do you do a site-specific hazard assessment?

There are different approaches to conducting a site-specific hazard assessment. What follows is a sample process that involves five key steps.

THE SITE-SPECIFIC HAZARD ASSESSMENT PROCESS

- 1 Figure out what tasks will take place on site today.
- 2 Identify hazards.
- 3 Eliminate or control the hazards.
- 4 Communicate the hazards and follow the controls.
- 5 Repeat when there are changes to the work site.

Site-specific hazard assessments

STEP ONE

1 Take a look at the work site and figure out what the tasks are for the day.

You'll want to consider the nature of the work that is being performed and who is scheduled to be doing it. This includes your workers, but may also include any other workers or crews scheduled to be on site for the day.

STEP TWO

2 Identify hazards on the work site.

Remember, a hazard is any situation, condition or thing that may be dangerous to the safety or health of workers.

Situations that can create hazards



slippery surfaces



uneven ground



moving equipment or vehicles



strong wind (blowing debris)



extreme temperatures



poor lighting

Think about the **materials** being used at the work site, and the processes being followed. What kind of **equipment** is or is expected to be on site? Are there any **environmental** conditions (e.g. rain, mud, wind) that could affect the site?

The **people** themselves should be a consideration here. What is the level of skill and experience on site? Are workers well trained/competent in performing the work? Are they working extra long shifts (likely to be overtired)? Are they under pressure to stay on a tight schedule? Are visitors on site?

The sample template on the next page covers the essential parts of a site-specific hazard assessment. You will want to customize this template so it applies to your specific work environment. If your organization faces a lot of common hazards in your work processes, you might consider including those as part of your form.

Site-specific hazard assessment and control (template)

Company name:	
Work to be done:	Date of assessment:
Task location:	Emergency meeting location:

Identify the tasks and hazards below, and the plans to eliminate/control those hazards

Tasks (List all tasks/activities)	Hazards (List both health and safety hazards and consider surrounding area)	Plans to eliminate/control (List the controls for each hazard: Eliminate, Engineering, Administrative, Personal Protective Equipment)

Please print and sign below (all members of the crew) prior to commencing work

By signing this form, you acknowledge that you understand the hazards and how to apply the methods to eliminate or control the hazards.

Worker's name (Print)	Signature	Worker's name (Print)	Signature

Supervisor's name (Print)	Supervisor's signature
---------------------------	------------------------

This form is for example purposes only. Completing this form alone will not necessarily put you in compliance with the legislation. It is important and necessary that you customize this document to meet the unique circumstances of your work site. Further, it is essential that this document is not only completed, but is used, communicated and implemented in accordance with the legislation. The Crown, its agents, employees or contractors will not be liable to you for any damages, direct or indirect, arising out of your use of this form.

See additional sample forms (Appendix 2)

Download a copy at work.alberta.ca/documents/ohs-bulletin-bp018-site-specific-sample.doc

Site-specific hazard assessments

STEP THREE

3 Eliminate or control the hazards you've identified.

There is no point to prioritizing the hazards identified during a site-specific hazard assessment.

All of the hazards identified should be either eliminated or controlled **before work proceeds**.



If an existing or potential hazard to workers is identified during a hazard assessment, an employer must take measures in accordance with this section to

- a.** eliminate the hazards, or
- b.** if elimination is not reasonably practicable, control the hazard.

Occupational Health and Safety Code, Part 2, Section 9(1)

Wherever possible, try to eliminate hazards. If hazards cannot be eliminated, they must be controlled.

Elimination

When elimination of the hazard is not an option (i.e. weather conditions are beyond an employer's control), Alberta's Occupational Health and Safety Code (Part 2, Section 9(2-5)) establishes the hierarchy of controls to follow:

FIRST CHOICE

Engineering controls –

control the hazard at the source.



erect tarps to protect from the elements



introduce guardrails



cover an open hole

SECOND CHOICE

Administrative controls –

control the hazard along the path (i.e. between the hazard and workers).



put up signage



adjust work schedule (delay outdoor work if possible)



review/follow safe work procedures (from formal hazard assessment)

THIRD CHOICE

Personal Protective Equipment (PPE) –

control the hazard at the worker.



wear cut-resistant gloves



wear hard hats



wear reflective vests



wear eye protection



wear safety harness



wear approved footwear

Combination of controls

If the hazard cannot be eliminated, or controlled by using a single control method, use a combination of engineering, administrative and personal protective equipment to provide a greater level of worker health and safety.

Site-specific hazard assessments

STEP FOUR

4 Communicate: Make sure all affected workers are aware of and understand the hazards and follow the controls.

The employer is legally required to inform affected workers about the hazards identified in a hazard assessment, and the measures introduced to control the hazards. Workers are required to follow/use the controls.

Having all affected workers review and sign the completed site-specific hazard assessment is a good way to confirm the information has been shared.

Any new or previously unidentified hazards noted in a site-specific hazard assessment might be considered for addition to formal hazard assessment documentation.

STEP FIVE

5 Repeat hazard assessments when there are changes to the work site.

A site-specific hazard assessment must be repeated if conditions at the work site change. They must also be dated and should be retained for the record.

Hazard assessments must be dated.

It's a legal requirement, but it also helps with record management at your end. You will want to retain up-to-date hazard assessments for the record.

Resources

Resources

Occupational Health and Safety Legislation

A copy of the *Occupational Health and Safety Act*, Regulations and Code, and OHS Code Explanation Guide, together with this handbook can provide an excellent basis from which to begin.

This handbook is current to March 2015. It references:

Occupational Health and Safety Act, Chapter O-2, R.S.A. 2000 (current as of October 1, 2013)

Occupational Health and Safety Regulations, AR 62/2003 (with amendments up to AR 182/2013)

Occupational Health and Safety Code 2009

Occupational Health and Safety Code Explanation Guide 2009

The current OHS legislation is available on the website at:

work.alberta.ca/ohs-legislation

Official printed versions of the *Occupational Health and Safety Act*, Regulations and Code Handbook and OHS Code Explanation Guide, may be purchased from Alberta Queen's Printer:

qp.alberta.ca

7th floor Park Plaza Building
10611 – 98 Avenue NW
Edmonton, AB T5K 2P7

Phone: 780-427-4952

Fax: 780-452-0668

Email: qp@gov.ab.ca

Resources

Additional resources

Government of Alberta – OHS Legislation

work.alberta.ca/ohs-legislation

Government of Alberta – OHS Legislation Awareness eLearning Program

work.alberta.ca/elearning/Legislation/legislation.htm

Government of Alberta – Hazard Assessment eLearning Program

work.alberta.ca/elearning/hazard/Hazard.htm

Government of Alberta –

Leading Indicators for Workplace Health and Safety: a user guide [BP019]

work.alberta.ca/documents/ohs-best-practices-BP019.pdf

Government of Alberta –

Supervisor Roles and Responsibilities: an occupational health and safety handbook [BP020]

work.alberta.ca/documents/ohs-best-practices-BP020.pdf

Government of Alberta – Occupational Health and Safety Tool Kit for Small Business [SMB001]

work.alberta.ca/documents/OHS-Tool-Kit-Small-Business.pdf

Government of Alberta – Certifying Partners

work.alberta.ca/certifyingpartners

Additional resources

Canadian Centre for Occupational Health and Safety (CCOHS) – Hazard Control

[ccohs.ca/oshanswers/hsprograms/hazard_control.html](https://www.ccohs.ca/oshanswers/hsprograms/hazard_control.html)

Canadian Centre for Occupational Health and Safety (CCOHS) – Job Safety Analysis

[ccohs.ca/oshanswers/hsprograms/job-haz.html](https://www.ccohs.ca/oshanswers/hsprograms/job-haz.html)

Workplace Health, Safety & Compensation Commission of Newfoundland and Labrador –
OH&S Guidelines – Hazard Recognition, Evaluation and Control

[whscc.nf.ca](https://www.whscc.nf.ca)

Workers' Safety & Compensation Commission (WSCC) Northwest Territories and Nunavut –
Code of Practice Hazard Assessment

[wsc.nt.ca](https://www.wsc.nt.ca)

Contact us

Province-wide OHS Contact Centre

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Edmonton and surrounding area

780-415-8690

Throughout Alberta

1-866-415-8690

For the deaf or hard-of hearing (TDD/TYY)

In Edmonton

780-427-9999

Throughout Alberta

1-800-232-7215

Website

work.alberta.ca/OHS

Feedback survey

work.alberta.ca/ohsresourcesurvey

Appendix 1

Formal hazard
assessment
and control:
sample forms

Formal hazard assessment and control (sample form)

Job/position/work type: Administration/Office work		Date of assessment: March 15, 2014			
Assessment performed by: (names) Courtney Miller, Jaye Parton, Matthew Poole		Reviewed/revised:			
Tasks (List all tasks/activities of the job/position)	Hazards (List all existing and potential health and safety hazards)	Severity		Controls (List the controls for each hazard: Elimination, Engineering, Administrative, Personal Protective Equipment)	Date implemented:
		S	L		
Operating PC (General computer tasks)	Extended periods of sitting Glare from the monitor	2	1	2	Admin: Ergonomic setup of workstation; take micro-breaks to get up and stretch. April 20, 2014
Photocopying, faxing, stapling, hole punching	Repetitive motion	1	1	1	Eng: Anti-glare screens or monitors. Admin: Take breaks as necessary. April 20, 2014
Refilling toners	Contact with chemicals/toner	1	1	1	Admin: Place toner lid from new toner cartridge on the old one to prevent exposure WHMIS training. PPE: Use nitrile gloves. April 30, 2014
Filing	Awkward positions	2	2	4	Admin: Use stool; take breaks to stretch if required. April 20, 2014
	Struck by/crushed	2	1	2	Eng: Cabinet is engineered to not allow more than one drawer to be open at a time. Admin: Cabinets are loaded bottom-up. April 30, 2014
Operating paper shredder	Loose clothing or jewelry could be caught in shredder opening	1	1	1	Eng: Automatic shut off switch/Emergency shut off. Admin: Ensure loose clothing or jewelry is removed or tucked in before operating shredder; shred on a different day; employ a mobile shredding facility. April 20, 2014
Severity: How serious could the consequences be? 3 - It could kill you or cause a permanent disability, today or over time. 2 - It could send you to the hospital. 1 - It could make you uncomfortable.		Likelihood: How likely is it going to happen? 3 - It is highly likely. 2 - It might happen. 1 - It is unlikely.		Risk: Calculate the risk of hazards to prioritize preventive actions. Severity x Likelihood = Risk	

This form is for example purposes only. This is not an exhaustive list of all tasks, hazards and controls associated with the job/position/work type. The ratings assigned to severity and likelihood are for example purposes only. Completing this form alone will not necessarily put you in compliance with the legislation. It is important and necessary that you customize this document to meet the unique circumstances of your work site. Further, it is essential that this document is not only completed, but is used, communicated, and implemented in accordance with the legislation. The Crown, its agents, employees or contractors will not be liable to you for any damages, direct or indirect, arising out of your use of this form.

Formal hazard assessment and control (sample form)

Job/position/work type: Forklift Operator		Date of assessment: July 3, 2014			
Assessment performed by: (names) John Jones and Sarah Smith		Reviewed/revised:			
Tasks (List all tasks/activities of the job/position)	Hazards (List all existing and potential health and safety hazards)	Severity		Controls (List the controls for each hazard: Elimination, Engineering, Administrative, Personal Protective Equipment)	Date implemented:
		S	L		
Pre-use inspection	Exposed to engine and hydraulic fluids	2	2	Admin: WHMIS training. PPE: Safety boots. PPE: Use CSA-approved safety glasses and proper gloves.	August 10, 2014 August 10, 2014
Picking up loads	Unsecured material, tip over/load loss	3	2	Eng: Pallet shrink wrapping machine. Admin: Racking Inspections, Safe Work Practice #43 – Forklift Operation, Safe Zone Practice. PPE: Use of seatbelt.	October 19, 2014 August 5, 2014
Travel loaded	Restricted vision	3	3	Admin: Use of spotter(s).	August 5, 2014 July 30, 2014
Placing loads	Falling material	3	2	Admin: Safe Work Practice #43 – Forklift Operation, Safe Zone Practice.	August 23, 2014
	Rack failure	3	2	Admin: Racking inspections.	August 23, 2014
Severity: How serious could the consequences be? 3 - It could kill you or cause a permanent disability, today or over time. 2 - It could send you to the hospital. 1 - It could make you uncomfortable.		Likelihood: How likely is it going to happen? 3 - It is highly likely. 2 - It might happen. 1 - It is unlikely.		Risk: Calculate the risk of hazards to prioritize preventive actions. Severity x Likelihood = Risk	

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Formal hazard assessment and control (sample form)

Job/position/work type: Grocery/Back Room Attendant		Date of assessment: October 1, 2014			
Assessment performed by: (names) Mary Miller, Jessica Hill, Simon Bond		Reviewed/revised:			
Tasks (List all tasks/activities of the job/position)	Hazards (List all existing and potential health and safety hazards)	Severity		Controls (List the controls for each hazard: Elimination, Engineering, Administrative, Personal Protective Equipment)	Date implemented:
		S	L		
Receiving	Unstable load/falling product	2	2	Admin: Worker to assess load for stability. If unstable to move, load off by hand until stable enough to move. PPE: Worker to wear steel-toed boots.	December 19, 2014
	Trailer shift or trailer movement	2	2	Admin: Follow Safe Work Practice: Lock trailer to loading gate.	January 15, 2015
Stacking/storing overstock onto racking system	Product falling off racking from heights	3	2	Admin: Stack materials appropriately: heavy items on bottom racks, make sure materials are secured and not leaning, boxes must not be crushed. PPE: Workers to wear hard hats and steel-toed boots.	November 28, 2014
Stacking/storing overstock in coolers and freezers	Wet/slippery floors	2	2	Elimination: Clean up floors using proper clean-up procedures. PPE: Workers to wear slip-resistant steel-toed boots.	December 19, 2014
	Working in cold	2	2	PPE: Wear appropriate cold weather gear.	December 19, 2014

Severity: How serious could the consequences be? 3 - It could kill you or cause a permanent disability, today or over time. 2 - It could send you to the hospital. 1 - It could make you uncomfortable.	Likelihood: How likely is it going to happen? 3 - It is highly likely. 2 - It might happen. 1 - It is unlikely.	Risk: Calculate the risk of hazards to prioritize preventive actions. Severity x Likelihood = Risk
--	--	---

This form is for example purposes only. This is not an exhaustive list of all tasks, hazards and controls associated with the job/position/work type. The ratings assigned to severity and likelihood are for example purposes only. Completing this form alone will not necessarily put you in compliance with the legislation. It is important and necessary that you customize this document to meet the unique circumstances of your work site. Further, it is essential that this document is not only completed, but is used, communicated, and implemented in accordance with the legislation. The Crown, its agents, employees or contractors will not be liable to you for any damages, direct or indirect, arising out of your use of this form.

Formal hazard assessment and control (sample form)

Job/position/work type: Vacuum Truck Operator/Swamper		Date of assessment: September 1, 2014			
Assessment performed by: (names) Gordon Carr, Neil Skinner, Christian Avery		Reviewed/revised:			
Tasks (List all tasks/activities of the job/position)	Hazards (List all existing and potential health and safety hazards)	Severity		Controls (List the controls for each hazard: Elimination, Engineering, Administrative, Personal Protective Equipment)	Date implemented:
		S	L		
Pre-trip inspection	Exposure to moving equipment	3	2	Admin: Follow Safe Work Practice 001 – Controlled zone for pre-trip inspection (use of pylons). PPE: Reflective vest.	September 30, 2014
	Awkward access points	3	2	Eng: Engine bonnet designed to stay in open position with hydraulic rams in place. Admin: Driver Training Module 11 covers hazards associated with pre-trip inspection. PPE: Coveralls, work gloves, work boots, hard surface bump hat.	September 30, 2014
	Exposure to chemicals, fluids	2	2	Admin: Safe Work Practice 002 – Regular laundry of coveralls. Admin: Use of funnels required when filling lubricants, fluids. Admin: Review equipment list to ensure clean lines for transport of water. PPE: Coveralls, work gloves, work boots, eye protection.	September 30, 2014
	Icy or slick access points and work steps	3	2	Admin: 3 point contact entry and exit of vehicle (Driver Training Module 11).	September 30, 2014
Travel to site	Adverse weather conditions	3	2	Admin: Consult road report, follow company Safe Work Practice 003 – Journey Management.	September 30, 2014

Severity:

How serious could the consequences be?

- 3 - It could kill you or cause a permanent disability, today or over time.
- 2 - It could send you to the hospital.
- 1 - It could make you uncomfortable.

Likelihood:

How likely is it going to happen?

- 3 - It is highly likely.
- 2 - It might happen.
- 1 - It is unlikely.

Risk:

Calculate the risk of hazards to prioritize preventive actions.
Severity x Likelihood = Risk

This form is for example purposes only. This is not an exhaustive list of all tasks, hazards and controls associated with the job/position/work type. The ratings assigned to severity and likelihood are for example purposes only. Completing this form alone will not necessarily put you in compliance with the legislation. It is important and necessary that you customize this document to meet the unique circumstances of your work site. Further, it is essential that this document is not only completed, but is used, communicated, and implemented in accordance with the legislation. The Crown, its agents, employees or contractors will not be liable to you for any damages, direct or indirect, arising out of your use of this form.

Appendix 2

Site-specific
hazard assessment
and control:
sample forms

Site-specific hazard assessment and control (sample form)

Company name: AB Vac Services	
Work to be done: Loading water on site	Date of assessment: May 13, 2014
Task location: North Yard	Emergency meeting location: NE parking lot

Identify the tasks and hazards below, and the plans to eliminate/control those hazards

Tasks (List all tasks/activities)	Hazards (List both health and safety hazards and consider surrounding area)	Plans to eliminate/control (List the controls for each hazard: Eliminate, Engineering, Administrative, Personal Protective Equipment)
Arrival at site	Concurrent work – Multiple vehicles entering and exiting yard area where task is to be completed	Admin: Work area to be cordoned off with pylons – staff made aware of hazards. PPE: Wear high-visibility vests.
Setting up job	People present in work area conducting inspection	Admin: Workers provided orientation. Workers required to stay with assigned staff throughout job. PPE: Wear high-visibility vests, safety glasses and hard hats.
Performing the job	Slip and fall as hole is being dug	Elimination: Remove trip hazards. Eng: If ground becomes too muddy add traction with gravel. Admin: Watch footing. PPE: Wear cleats/slip-resistant steel-toed boots.

Please print and sign below (all members of the crew) prior to commencing work

By signing this form, you acknowledge that you understand the hazards and how to apply the methods to eliminate or control the hazards.

Worker's name (Print)	Signature	Worker's name (Print)	Signature
Mark Allanovic	<i>Mark Allanovic</i>	Mark Zuckboj	<i>Mark Zuckboj</i>
Steve Jobs	<i>Steve Jobs</i>		

Supervisor's name (Print) Sylvester Stanley	Supervisor's signature <i>Sylvester Stanley</i>
---	---

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Site-specific hazard assessment and control (sample form)

Company name: Grab and Go Grocery		Date of assessment: October 1, 2014
Work to be done: Installation of new rotisserie oven		Emergency meeting location: NW corner of parking lot
Task location: Deli		

Identify the tasks and hazards below, and the plans to eliminate/control those hazards

Tasks (List all tasks/activities)	Hazards (List both health and safety hazards and consider surrounding area)	Plans to eliminate/control (List the controls for each hazard: Eliminate, Engineering, Administrative, Personal Protective Equipment)
Remove old rotisserie oven	Greasy surfaces and floors Awkward lifting/position	Eliminate: Clean the oven. Clean any visible grease off floor. Engineering: Tape the oven shut and wrap in plastic wrap to contain any residue. PPE: Wear appropriate steel-toed boots. Engineering: Use a cart to transport oven. Administrative: 2 person lift. Follow safe work procedures for lifting.
Install new rotisserie oven	Awkward lifting/position Exposure to electricity	Engineering: Use a cart to transport oven. Administrative: 2-person lift. Follow safe work procedures for lifting. Engineering: Lock out electrical for oven until fully installed.

Please print and sign below (all members of the crew) prior to commencing work

By signing this form, you acknowledge that you understand the hazards and how to apply the methods to eliminate or control the hazards.

Worker's name (Print)	Signature	Worker's name (Print)	Signature
Bradley Smith	<i>Bradley Smith</i>	Emma Rose	<i>Emma Rose</i>
Hannah Kvame	<i>Hannah Kvame</i>	Angela Martin	<i>Angela Martin</i>

Supervisor's name (Print) Andrew Young	Supervisor's signature <i>Andrew Young</i>
---	---

This form is for example purposes only. This is not an exhaustive list of all tasks, hazards and controls associated with the job/position/work type. Completing this form alone will not necessarily put you in compliance with the legislation. It is important and necessary that you customize this document to meet the unique circumstances of your work site. Further, it is essential that this document is not only completed, but is used, communicated and implemented in accordance with the legislation. The Crown, its agents, employees or contractors will not be liable to you for any damages, direct or indirect, arising out of your use of this form.

Appendix 3

Formal and
site-specific
hazard assessments
at a glance

Formal hazard assessment at a glance

Formal hazard assessments

STEP ONE

Begin by figuring out what people do in the organization.

STEP TWO

List all tasks/activities of each job or work type.

STEP THREE

Identify both *health* and *safety* hazards of each task.

STEP FOUR

Rank the hazards you identified according to risk.

STEP FIVE

Find ways to eliminate or control the hazards, addressing the hazards that pose the greatest risk first.

STEP SIX

Implement the selected controls.

STEP SEVEN

Communicate the hazards and follow the controls.

STEP EIGHT

Continue to monitor the controls for their effectiveness.

STEP NINE

Review and revise hazard assessments as needed.

Site-specific hazard assessment at a glance

Site-specific hazard assessments

STEP ONE

Take a look at the work site and figure out what the tasks are for the day.

STEP TWO

Identify hazards on the work site.

STEP THREE

Eliminate or control the hazards you've identified.

STEP FOUR

Communicate: Make sure all affected workers are aware of and understand the hazards and follow the controls.

STEP FIVE

Repeat hazard assessments when there are changes to the work site.



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