

# Building an Effective Health and Safety Management System



# Table of Contents

Introduction	1
What is the Partnerships in Injury Reduction Program?	1
What is the “Mission” and “Vision” of the Partnerships Program?	1
What is a Health and Safety Management System?	1
How is a Health and Safety Management System Evaluated?	2
What is a Certificate of Recognition and what are the benefits of obtaining one?	2
How long is the COR valid and how do I maintain it?	3
How to develop your Health and Safety Management System	3
Where can I get help with Developing a Health and Safety Management System?	3
Alberta's Certifying Partners	4
Glossary	5
Components of a Health and Safety Management System	8
1. Management Leadership and Organizational Commitment	8
2. Hazard Identification and Assessment	11
3. Hazard Control	16
4. Ongoing Inspections	19
5. Qualifications, Orientations and Training	22
6. Emergency Response Plan	24
7. Incident Investigation	27
8. Program Administration	30
Appendix Sample Forms	
Company Health and Safety Policy	ii
Assignment of Responsibility	iii
Job Inventory Worksheet	v
Hazard Identification and Assessment Worksheet	vi
Critical Task Worksheet	vii
Work Site Inspection Checklist	viii
Health and Safety Orientation Checklist	xi
Incident Report	xii
Incident Investigation Report	xiii
Witness Statement	xvi
Emergency Contact List	xvii

# Introduction

## What is the Partnerships in Injury Reduction Program?

**First established in 1989 as the Partnerships in Health and Safety program, Partnerships in Injury Reduction (Partnerships)** is a voluntary program designed to reduce losses caused by workplace injuries and illnesses. The program brings government together with industry and safety associations, employers, and the Workers' Compensation Board of Alberta (WCB) to encourage Alberta employers to build effective health and safety management systems.

The Partnerships Program is based on the premise that when employers and workers build effective Health and Safety Management Systems in their own workplaces, the social and financial costs of workplace injuries and illnesses will be reduced.

## What is the “Mission” and “Vision” of the Partnerships Program?

The mission of the Partnerships Program is:

*“to work with stakeholders to encourage employers and workers to build effective Health and Safety Management Systems.”*

The vision of the Partnerships Program is:

*“a culture where effective health and safety is an integral part of every workplace.”*

## What is a Health and Safety Management System?

A Health and Safety Management System involves the introduction of processes designed to decrease the incidence of injury and illness in the employer's operation. Successful implementation of the system requires management commitment to the system, effective allocation of resources, and a high level of employee participation. The scope and complexity of a Health and Safety Management System will vary according to the size and type of workplace.

The following elements are the basic components of a Health and Safety Management System, and are all very much interdependent.

1. Management Leadership and Organizational Commitment
2. Hazard Identification and Assessment
3. Hazard Control
4. Work Site Inspections
5. Worker Competency and Training
6. Incident Reporting and Investigation
7. Emergency Response Planning
8. Program Administration

## How is a Health and Safety Management System Evaluated?

Employers participating in the Partnerships Program conduct regular reviews of their Health and Safety Management Systems through annual audits. Audits are conducted by certified auditors using Partnerships' approved audit instruments that cover the basic elements of a Health and Safety Management System, and require the use of personnel interviews, documentation review and workplace observation as data gathering techniques.

## What is a Certificate of Recognition and what are the benefits of obtaining one?

A Certificate of Recognition (COR) is issued jointly by a Certifying Partner and Partnerships in Injury Reduction (Partnerships) when an employer's Health and Safety Audit meets Partnerships standards and successfully achieves a minimum audit score of 80% overall, and at least 50% in each element, as determined by an external certified auditor.

Employers must achieve and maintain a COR to become eligible for financial incentives through the WCB's PIR program, but there are many other benefits associated with the implementation of a health and safety program, including:

- fewer injuries and incidents, and reduced associated costs (both direct and indirect)
- better staff morale and less staff turnover
- improved work environment
- increased productivity and better quality
- reduced absenteeism
- less downtime due to equipment damage

The overall impact of injuries and illnesses on the economy is significant when both the direct and indirect costs are considered, and successful business leaders recognise that Health and Safety Management Systems are a necessary part of doing business. WCB data indicates that the total cost of claims in Alberta reaches hundreds of millions of dollars annually (see the Workers' Compensation Board Provincial Synopsis for the most recent figures), and this number represents only the *direct* costs of workplace incidents. The hidden, often unrecorded, *indirect* costs can add up to 5 to 10 times that amount, and include costs resulting from:

- property and equipment damage
- production delays
- training for replacement workers
- investigation time
- downtime
- missed deadlines
- overtime costs
- reduced employee morale

As illustrated, lost time, insurance costs, and other expenses can add up quickly. And if an incident draws media coverage, the employer may also find their sales, image, and reputation will suffer adverse effects. And of course, the true cost of human suffering cannot be accounted for completely.

Implementation of an effective Health and Safety Management System is a proactive way to prevent injuries and illnesses. While it cannot guarantee that incidents will *never* occur on a work site, an effective Health and Safety Management System will minimize both the number and the severity of workplace incidents, and will help demonstrate due diligence and duty of care in the

event that an incident does occur. It can also distinguish a company as *an employer of choice* in a competitive market, and it is not unusual for Alberta corporations to expect bidding contractors to hold a valid COR.

## **How Long is the COR valid and how do I maintain it?**

The COR is valid for three years from the date of issue, providing that all maintenance requirements are met. The COR issue date corresponds to the last date of on-site data collection by the auditor.

To maintain a COR, an employer is required to have a maintenance audit conducted within the first calendar year after the COR issue date, and again within the second calendar year. Maintenance audits must be undertaken by a certified auditor who may be an employee of the company. Once an employer has completed their first three-year cycle, there are other options available in the maintenance years. Contact your Certifying Partner for more information on what is available.

Note that employers are expected to maintain their Health and Safety Management System at all times, and to comply with applicable Occupational Health and Safety legislation. Significant infractions may result in a comprehensive review of the employer's existing COR, and the subsequent cancellation of COR status.

## **How to Develop your Health and Safety Management System?**

This manual can serve as a starting point for the development of a Health and Safety Management System specific to your organisation. The following sections describe each of the eight elements that comprise a Health and Safety Management System. Also included in each section are self-evaluation questions that will help you to determine if your system is working effectively, and sample forms and checklists are also included at the end of this manual.

When beginning to develop and implement health and safety systems at any work site, it is important to remember that communication is key to success. Involve employees at all levels in the development of the system. Both workers and employers will gain from their involvement, and the system will be better as a result of their input.

## **Where can I get help developing a Health and Safety Management System?**

Employers are encouraged to work with a Certifying Partner when they begin developing their Health and Safety Management System. Certifying Partners provide training and other health and safety resources under the mandate of the Partnerships in Injury Reduction Program, and offer training on Health and Safety Management System building, incident investigations, health and safety system audits, etc. Certifying Partners will also tell you about the benefits of a COR and help you achieve and maintain this certification.

## ALBERTA'S CERTIFYING PARTNERS

**Alberta Association for Safety Partnerships**  
All industries

**Alberta Construction Safety Assn.**  
All construction industries

**Alberta Corporate Human Resources**  
Government entities

**Alberta Food Processors Assn.**  
Bakeries, meat packers & processors, breweries, miscellaneous processors, retail and food service

**Alberta Forest Products Assn.**  
Member forest product manufacturers and their logging, trucking of logs, and timber management contractors

**Alberta Hotel Safety Assn.**  
Hotels, motels and convention centres

**Alberta Motor Transport Assn.**  
All general trucking, specialized trucking and garbage hauling

**Alberta Municipal Health & Safety Assn.**  
Cities, towns, villages, counties and municipal districts

**Alberta Safety Council**  
All industries

**Continuing Care Safety Assn.**  
Public and private long-term care facilities

**ENFORM**  
All petroleum-related industries

**Manufacturers' Health and Safety Assn.**  
All manufacturing, machine, hydraulic, and metal fabricating shops.

**Textile Rental Institute of Alberta**  
Dry cleaning, commercial washing, garment textile industry, linen manufacturing and rental

**Western Wood Truss Association of Alberta**  
Wood truss fabrication and home improvement centres

To obtain the most current information, go to [www.industry.alberta.ca/whs-partnerships](http://www.industry.alberta.ca/whs-partnerships)

# Glossary

<b>Audit</b>	An evaluation of an organization's Health and Safety Management System against an approved standard.
<b>Auditor</b>	An individual certified by a Certifying Partner to conduct health and safety audits.
<b>Certificate of Recognition (COR)</b>	A certificate jointly issued by Partnerships and a Certifying Partner to employers who have successfully completed a Health and Safety Management System audit, demonstrating that their system meets the provincial Partnerships standard. A valid COR is required before an employer is eligible to receive financial incentives through the WCB's Partner in Injury Reduction (PIR) program.
<b>Certifying Partner</b>	An industry/safety association that has entered into an agreement with Partnerships to provide health and safety training, certify and maintain a list of auditors, and conduct quality assurance reviews on submitted audit reports.
<b>Competent Worker</b>	Person who is adequately qualified, suitably trained, and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision.
<b>Continuous Improvement</b>	Always striving to innovate, implement and improve on current conditions.
<b>Contractor</b>	An individual or employer hired under contract to provide materials or services to another individual or employer.
<b>Critical Job</b>	A job with high potential for serious loss or injury.
<b>Documentation Review</b>	Part of a health and safety audit, designed to determine if an employer has the required processes, policies, and procedures in place, and if adequate records are being kept.
<b>Employee</b>	Anyone who works for an organization (e.g. senior managers, managers, supervisors, and workers).
<b>Hazard</b>	<p>A situation, condition, or behaviour that has the potential to cause an injury or loss.</p> <p>Health Hazard: a physical, chemical, biological or psychological hazard which may cause acute or chronic health effects in exposed employees (e.g. noise, dust, heat, ergonomics, etc.).</p> <p>Safety Hazard: a substance, process, action or condition which may endanger the immediate safety of employees (e.g. chemical burns, shear points, slips and falls, etc.).</p>
<b>Hazard Assessment</b>	A process used to identify and evaluate the health and safety hazards associated with job tasks. Provides a method for prioritizing health and safety hazards.

<b>Hazard Control</b>	<p>Method used to eliminate or control loss.</p> <p>Engineering Controls: Preferred method of hazard control if elimination is not possible; physical controls implemented at the design, installation, or engineering stages (e.g. guards, auto shutoff, etc.).</p> <p>Administrative Controls: Processes developed by the employer to control hazards not eliminated by engineering controls (e.g. safe work policies, practices and procedures, job scheduling or rotation, and training).</p> <p>Personal Protective Equipment (PPE): equipment used or clothing worn by a person for protection from health or safety hazards associated with conditions at a work site (e.g. gloves, safety glasses, fall protection, etc.). Used when engineering or administrative methods cannot fully control the hazards.</p>
<b>Imminent Danger</b>	<p>In relation to any occupation,</p> <p>(a) a danger that is not normal for that occupation, or</p> <p>(b) a danger under which a person engaged in that occupation would not normally carry out the person's work.</p>
<b>Incident</b>	A preventable, undesired and unexpected event that results, or has the potential to result, in physical harm to a person or damage to property (loss or no loss).
<b>Inspection</b>	A planned, systematic evaluation or examination of an activity or work site, checking or testing against established standards.
<b>Interview</b>	Part of a health and safety audit. A method used to gather and verify information about an organization's health and safety system. Includes either formal discussion using standard questions, or a questionnaire.
<b>Job Inventory</b>	A comprehensive list of jobs/tasks produced from a systematic review of all jobs/tasks in the work area.
<b>Legislation</b>	Provincial or federal government standards in the form of written acts, regulations, and codes.
<b>Manager</b>	A person who administers and/or supervises the affairs of a business, office, or organization.
<b>Near Miss</b>	An undesired event that under slightly different circumstances could have resulted in personal harm, property damage, or loss. Also referred to as an incident.
<b>Observation</b>	Part of a health and safety audit designed to allow an auditor to observe and verify specific conditions at a work site.
<b>Partners in Injury Reduction (PIR - WCB)</b>	Partners in Injury Reduction is a voluntary program offered to employers by the Workers' Compensation Board of Alberta. The PIR offers financial incentives to registered employers who successfully achieve a Certificate of Recognition (COR).
<b>Policy</b>	The documented principles by which an organization is guided in its management of affairs.
<b>Records</b>	Employer documents retained on file.
<b>Risk</b>	The chance of injury, damage, or loss.
<b>Root Cause</b>	The underlying or basic factors which contribute to an incident.



<b>Safe Work Practice</b>	A written set of guidelines which establish a standard of performance for an activity or work process.
<b>Safe Work/Safe Job Procedure</b>	A written, step-by-step instruction of how to perform a task from beginning to end.
<b>Site Familiarization</b>	Brief escorted tour or discussion to allow the auditor to become familiar with the work site(s) and any areas where special caution is required.
<b>Supervisor</b>	Anyone who directs the work of another.
<b>System</b>	A group of interrelated items, individuals, policies, procedures, records, etc. that achieve desired results.
<b>Unsafe Act</b>	Inappropriate action taken by a person that could result in loss.
<b>Unsafe Condition</b>	A condition that could result in loss.
<b>Visitor</b>	Any person present at the work site who is not under the direct control of the employer (e.g. courier).
<b>Work Site</b>	A location where a worker is, or is likely to be, engaged in any occupation and includes any vehicle or mobile equipment used by a worker in an occupation.
<b>Worker</b>	An employee supervised by a manager or supervisor/foreman.
<b>Workers' Compensation Board of Alberta (WCB)</b>	The Workers' Compensation Board (WCB) Alberta is a not-for-profit organization legislated to administer the workers' compensation system for the province.

# Components of a Health and Safety Management System

## 1. Management Leadership and Organizational Commitment

### Policy

For any Health and Safety Management System to be effective, management must show leadership and commitment to the program. The first step in accomplishing this is to put the organization's expectations around health and safety into writing by developing a Health and Safety Policy.

An organization's Health and Safety Policy should contain:

- A declaration of management's commitment to health and safety
- Overall goals and objectives of the health and safety program
- General health and safety responsibilities of management, workers, contractors and visitors while at the work site
- A requirement to comply with applicable government legislation, and
- A requirement to comply with the organization's own health and safety standards.

Employees (such as members of the Health and Safety Committee) should be involved in writing the policy, and the senior-operating officer must indicate the commitment of management by signing and dating the document. Ensure all employees are aware of the policy's contents by prominently posting it throughout the work site, and inserting a copy in the Health and Safety Manual. The policy should also be reviewed during orientations with new and transferred employees, and any contractors doing work for the organization.

### Roles and Responsibilities

Clearly defined and well-communicated health and safety roles and responsibilities for all levels of the organisation will create an expectation of a standard level of performance and accountability among employees, contractors, and visitors. All levels must be aware of their individual roles and responsibilities under both legislated and company standards. Specific health and safety responsibilities and goals can be built into job descriptions and contracts, and included in performance reviews. Management expectations and the consequences of not adopting health and safety responsibilities must be clearly communicated to all employees (see Assignment of Responsibility in the Appendix).

### Management Commitment

For a Health and Safety Management System to be effective, it is essential that management at all levels demonstrate their support of the health and safety program. This can be accomplished by their participation in health and safety leadership training, health and safety meetings, inspection tours, and incident investigations. Senior managers should also tour the work site at least once annually to communicate and reinforce healthy and safe practices and behaviours. Safety should be integrated into all operations and managed like any other company function.

## **Worker Participation**

It has been shown that successful Health and Safety Management Systems have high levels of worker involvement. Worker participation in the development of the system is particularly important to create ownership and overall buy-in into the system. Additionally, worker participation in the development of the Health and Safety Management System will help ensure a better fit with the culture of the organisation. To promote worker participation, actively involve them in the development of hazard assessment, inspections, preventative maintenance, training, emergency response, and incident reporting systems. Look for opportunities to get workers from all areas of the organisation involved, and provide regular updates on the progress of system development to keep the feedback loop open.

Once these systems have been implemented, maintain participation through ongoing communication with the Joint Health and Safety Committee, by posting investigations and inspection reports, and soliciting and responding to worker feedback on the health and safety systems.

## **Joint Worksite Health and Safety Committee**

A Joint Worksite Health and Safety Committee is a group of worker and employer representatives working together to identify and solve health and safety issues at the work site. The Health and Safety Committee offers employees an opportunity to become more actively involved in creating and maintaining interest in health and safety. Equal representation from all levels of the organisation should be included on the committee.

The purpose of the committee is to address health and safety concerns that cannot be dealt with in the course of daily work, and to offer recommendations for improvement to site health and safety. The committee does not have the power to make changes, but instead acts as an important communication link between the workers and management. Workers should be encouraged to report their health and safety concerns to the committee, and should expect a response, but cannot expect action by committee members. The committee is responsible for recommending how health and safety problems might be solved, not for carrying out the necessary changes. Supervisors and managers are obligated to take reasonable steps to ensure the health and safety of their workers. Communication from committee members through regular meetings, and by posting meeting minutes allows everyone on-site an opportunity to bring concerns forward for consideration.

*For further information on Joint Worksite Health and Safety Committees, check the Alberta Occupational Health and Safety website for information bulletins and other resources.*

## **Occupational Health and Safety Legislation**

A current copy of the Occupational Health and Safety Act, Regulation and Code and other health and safety information relevant to the operation must be available to employees at the work site. This provides workers with access to the minimum requirements for conducting activities covered by legislation, and access to information about their rights and responsibilities. Official printed versions of the legislation are available on-line from the Alberta Queen's Printers.

## Self-Evaluation Questions

1.1	Is there a written Health and Safety Policy for the organization?
1.2	Is the policy signed by the current senior operating officer?
1.3	Is the policy readily available to employees?
1.4	Are employees aware of the policy's contents?
1.5	Have specific health and safety responsibilities been written for: <ul style="list-style-type: none"> <li>• Managers?</li> <li>• Supervisors?</li> <li>• Workers?</li> <li>• Contractors?</li> <li>• Visitors?</li> </ul>
1.6	Are the following aware of their specific health and safety responsibilities covered by legislation and departmental policy: <ul style="list-style-type: none"> <li>• Managers?</li> <li>• Supervisors?</li> <li>• Workers?</li> <li>• Contractors?</li> </ul>
1.7	Are all employees evaluated on their individual health and safety performance? <ul style="list-style-type: none"> <li>• Managers?</li> <li>• Supervisors?</li> <li>• Workers?</li> </ul>
1.8	Does the senior operating officer communicate to employees, at least annually, the organization's commitment to health and safety?
1.9	Do the most senior managers on site tour the work site to reinforce health and safety practices and behaviours: <ul style="list-style-type: none"> <li>• Every 6 months?</li> <li>• Yearly?</li> </ul>
1.10	Is relevant, current health and safety legislation readily available at work sites?
1.11	Is there a process in place that addresses contractor health and safety while on site?
1.12	Is there a process in place that addresses visitor health and safety while on site?
1.13	Does the employer provide the health and safety resources needed (workers, equipment methods, materials, and money) to implement and improve health and safety?

## 2. Hazard Identification and Assessment

The identification of hazards at a work site is the next step in the development of a Health and Safety Management System. Along with leadership commitment, hazard assessment will form the foundation of your health and safety system. It is important to proactively assess all jobs for hazards, and key personnel should be trained in the process of carefully evaluating existing and potential hazards at the work site. Involvement at all levels is important, and will make both management and workers aware of hazards that may not otherwise have been noticed until an incident occurred.

Road safety is a good example of a work-related hazard that may not normally be identified as part of a worker's job, despite the fact that many people routinely operate a vehicle in the daily performance of their work duties. Though employers operating commercial vehicles (e.g. buses, trucks, delivery vans) will know to add "driving" as a job task that needs to be assessed for hazards, employers with workers who engage in non-commercial driving as part of their jobs may neglect to include this task as part of their hazard assessment. Given that one-third of all occupational fatalities in Alberta are related to road safety, it is important to assess the hazards inherent in conducting tasks that involve driving for work (going to off-site meetings, banking, picking up parts, etc.) , whether employees use a company vehicle or their own car to perform these functions. Work-related driving is one of the many tasks that employers must subject to a hazard identification and assessment process, in order to determine what controls can be implemented to eliminate or reduce the hazards of performing these functions.

### Hazard Identification and Assessment Process

According to the Occupational Health and Safety legislation, employers are required to assess a work site for existing and potential hazards before work begins.

The Hazard Identification and Assessment process will impact many other elements of the Health and Safety Management System. As a result, it is important to take the time necessary to do the job thoroughly. Hazard assessment data can also be used to develop other elements of a Health and Safety Management System, including:

- **Training and Orientation:** use hazard assessment data to determine what worker training needs to be done, and to build the content of employee orientations and job-specific training.
- **Work Site Inspections:** use hazard assessment data as the basis for inspection checklists.
- **Emergency Response:** use hazard assessments to help pinpoint areas that will require Emergency Response Plans.
- **Incident Investigations:** hazard assessment and control data can be used to help determine if a system failure was the cause of an incident.

## Hazard Identification

Occupational hazards are divided into two categories:

- **Health Hazards:** A health hazard may produce serious and immediate (acute) health effects or cause long-term (chronic) health problems. All or part of the body may be affected. Someone with an occupational illness may not recognize the symptoms immediately. For example, noise-induced hearing loss is often not noticed until it is well advanced.
- **Safety Hazards:** A safety hazard is anything that could endanger the immediate safety of an employee, for example, a pinch point, crush, or burn hazard.

### *Hazard Categories*

Both health and safety hazards can be classified into the following categories:

- Physical hazards, including lifting, repetitive motions, slipping, machinery, working at heights, loud noise, extreme temperatures, etc.
- Chemical Hazards, including exposure to chemicals, dusts, fumes, mists and vapours.
- Biological Hazards, including exposure to viruses, fungi, bacteria, moulds, body fluids, and sewage.
- Psychological Hazards, including violence, stress and fatigue.

### *Hazard and Risk*

The terms “hazard” and “risk” are often used interchangeably (and incorrectly). A *hazard* is a situation, condition, or behaviour that has the potential to cause an injury or loss. For example, ice on a walkway, oven mitts with burn holes, or an unlabelled bottle of liquid are hazards. In contrast, *risk* is the chance of injury, damage, or loss and is usually expressed as a probability. For example, the risk of slipping on the icy walkway is high.

### *Imminent Danger*

Some hazards are significant enough to present a situation of imminent danger. The Occupational Health and Safety Act requires that workers stop performing work if they believe that an imminent danger to their health and safety exists. Imminent danger in relation to any occupation means a danger that is not normal for that occupation, or a danger under which a person engaged in that occupation would not normally carry out the work (*OHS Act*, 35(2)).

### *Sources of Hazards*

There are many sources of hazards in a workplace, however, the three most likely sources that should be considered are:

- **People:** Lack of training, poor communication, rushing, fatigue, and other factors may cause at-risk behaviours.
- **Equipment and Materials:** Some equipment, tools and materials used in the job process are inherently hazardous, and others become hazardous over time due to inadequate maintenance, storage, or disposal.
- **Workplace Environment:** Factors such as facility layout, ventilation and lighting, walking surfaces, temperature and other variables can all be sources of hazards.

## Hazard Assessment

There are two levels of hazard assessment:

- **Formal hazard assessment** is a complex undertaking and an important step in developing a Health and Safety Management System specific to your company.
- **Field-level hazard assessment** is performed on the spot when unusual hazards may be introduced into the employee's work.

### *Formal Hazard Assessment*

Formal hazard assessments will serve as the foundation of an employer's health and safety system, and involve the identification of all jobs and tasks performed by employees, the assessment of each task for hazards, and the prioritization of the hazards based on the level of risk. This process will be followed by the implementation of controls for the identified hazards (see Element 3).

Key employees charged with conducting hazard assessments should receive training in how best to complete the process. Training is available from Certifying Partners and other training agencies.

### *Steps for Conducting a Formal Hazard Assessment*

#### **1. Create an inventory of jobs and tasks**

The first step of formal hazard assessment is to create a list of all jobs within the scope of the employer's business, and record the number of workers that perform each job (see Job Inventory Worksheet). Once this is done, list all the tasks performed as part of each job identified (see Appendix for a sample Hazard Identification and Assessment Worksheet).

#### **2. Identify and assess hazards**

Each inventoried task is assessed to determine the potential hazards and associated risk. For each task listed, identify any health or safety hazards to which workers may be exposed. Be sure to involve workers who perform the tasks in this process to ensure nothing is overlooked.

After the hazards are identified, calculate their risk ratings by asking the following three questions:

- What are the **consequences** if the hazards are not controlled?
- What is the **probability** of an incident occurring?
- What is the **frequency** of exposure to the hazard?

(For an example of how to quantify a risk rating using consequences, probability and frequency, refer to the Risk Ranking Table at the bottom of the Hazard Identification and Assessment Worksheet in the Appendix.)

#### **4. Prioritize hazards**

Using the information from the assessment, determine the risk rating for each task, and rank the tasks in order of priority, based on the level of risk (see the Appendix for a sample Critical Task Worksheet). This will allow the hazard assessment team to address the tasks with the highest risk hazards first.

## 5. Determine controls

Address identified hazards by assigning methods of control to eliminate or reduce the hazard. The most effective controls can be determined based on legal requirements, manufacturers' specifications, company rules, industry best practices, and worker input. Record the control methods, the date of implementation, and the names of those who participated in the assessment and control process. Be sure to follow up with periodic reviews to ensure the control measures are working and effective. (See Element 3 on Hazard Control for more information.)

## 6. Review hazard assessments

Formal hazard assessments should be dated and subject to a regular review schedule to prevent the development of conditions that may put workers at risk. These reviews should take place annually (at a minimum), or any time a new process is introduced, a change is made to the operation, or a significant addition or alteration is made to a work site.

### ***Field-Level Hazard Assessment***

A field-level hazard assessment is performed at the job site when hazards not considered in the formal hazard assessment could be introduced. All workers at the job site must participate in a field-level assessment with their supervisor. The field-level hazard assessment is conducted before work begins, and repeated at reasonable intervals if a new work process is introduced, a process or operation changes, or before the construction of significant additions or alterations. The steps involved are as follows:

1. Before starting work on a new job site, or under unfamiliar conditions, worker(s) must stop to identify any hazards that may have been introduced into their usual work.
2. Any existing hazards are identified and assessed on the spot, and controls are put in place immediately to eliminate or reduce the risk to a reasonable level before work begins.

In many cases, a field-level hazard assessment will identify hazards that have already been identified and assessed through the formal hazard assessment process, since the formal process should have identified all hazards that workers would normally encounter in the course of their work. If this happens, the worker would be directed to a pre-determined method of hazard control. If a new and unusual hazard specific to the job or job site is identified, a new control method may have to be identified and implemented before work can begin.

When a new control method is required for a new or unusual hazard, that hazard should be reported to the supervisor. The company can then prioritize the hazard and determine if further preventative action needs to be conducted by the company (such as revision of training, procedures, and awareness bulletins).

### ***Reporting Hazards***

To support the hazard assessment process, employers must implement a system that requires workers to report any unsafe practices and conditions they identify at the work site. This can be done through the use of a safety suggestion box, or by designating a worker as the contact for safety concerns. Suggestions or ideas received should be addressed in a timely manner.



### Self-Evaluation Questions

2.1a	Does the employer have a list of all jobs carried out at the work site?
2.1b	Has the employer compiled a list of all tasks associated with each job?
2.2	Are health and safety hazards identified for the jobs and tasks?
2.3	Have the health and safety hazards been evaluated according to risk?
2.4	Are identified health and safety hazards prioritized according to risk?
2.5	Are workers involved in health and safety hazard identification and assessment?
2.6	Are key employees trained in the process of hazard identification and assessment?
2.7	Are the health and safety hazard assessments reviewed when changes to the operation are implemented?

## 3. Hazard Control

Once the hazard assessments are completed, the next step in the development of a Health and Safety Management System is the implementation of control measures to eliminate or reduce the risk of harm to workers. This part of an OHS system is also covered under Occupational Health and Safety legislation, which requires employers to take all reasonable steps to eliminate or control identified hazards in order to make the workplace safer. Employers should check the legislation to determine if controls have been specifically prescribed for the jobs they do.

### Hierarchy of Controls

When beginning to implement control methods in the workplace, consider the hierarchy of controls to determine which control methods will be the most effective in reducing the risk of injury or illness. There are three categories of hazard control, and control methods are often used in combination to ensure the best level of worker protection possible. Whatever control methods are used, employers must have a system that allows for regular checks to determine whether or not the controls are working as intended.

**Engineering** is the best method of hazard control, and involves engineering out or substitution of the hazard. Where possible, engineering controls should always be the employer's first option. Examples include:

- Building a catwalk with handrails and replacing a portable ladder with a permanent access ladder for maintenance procedures
- Building a sound-dampening enclosure around a piece of loud equipment to reduce workers' noise exposure
- Replacing a harmful chemical with a less hazardous product

**Administrative** controls are the second most effective method of hazard control, and involve the implementation of practices, procedures and rules to reduce the amount of exposure a worker has to the danger. Examples include:

- Developing and enforcing the use of practices and procedures for conducting a task safely
- Providing emergency response training to all workers and conducting regular drills
- Job rotation
- Posting signs to warn of high noise areas

**Personal Protective Equipment (PPE)** is the method of last resort, and should *always be used in combination with other control methods*. Personal protective equipment is often the easiest control to implement, but is usually the least effective. In some cases, employers will supply workers with the required PPE, and in others, they may require workers to provide it themselves. In all cases, formal training in the care, use, and maintenance of all PPE should be provided by the employer. Examples of Personal Protective Equipment include:

- Safety glasses to protect the eyes from flying debris
- Hard hats to protect the head from falling objects
- Respiratory protective equipment to protect the lungs from harmful dusts and chemical vapours

## Developing Controls

### *Steps for developing/implementing hazard controls*

#### **1. Develop hazard controls**

Using the results of the hazard assessment, start by selecting those tasks that present the greatest risk to employees, and determine possible controls for the identified hazards. The hazard assessment team should lead this process, but would be well advised to solicit input from the workers doing these jobs. Their knowledge of the job tasks can be of great value to the process, and their involvement will help gain worker buy-in. Other sources of information about possible controls could include codes and standards, health and safety legislation, and existing company policies.

#### **2. Implementation of controls**

The next step is to implement the control methods selected. This will involve the installation of engineering controls, the development of policies, procedures, codes of practice, rules and preventative maintenance schedules, and the introduction of PPE. Implementation will also involve training workers and contractors in the use of controls, and the introduction of policies to enforce their use.

#### **3. Review and revise**

Hazard assessments and controls should be reviewed soon after controls are implemented to monitor for effectiveness. Subsequent and regular reviews should also take place at least annually to verify that original expectations were correct, and that established controls continue to be adequate. Employers should also re-evaluate hazard assessments and controls whenever there are changes to the operation or to the work being done.

## Enforcement of Controls

As noted in step 2 above, the employer is responsible for ensuring workers are informed of job-related hazards, trained in the methods used to control these hazards, and made accountable to use the controls in place. To enforce control methods, develop a constructive enforcement policy, and communicate the consequences to employees and the steps that will be taken if noncompliance occurs. Management and supervisors should always keep in mind that positive reinforcement also goes a long way in encouraging safe and healthy behaviours at the work site.

Communication and enforcement of the Enforcement Policy provides an opportunity for management to show their commitment to the Health and Safety Management System and the wellbeing of their employees.

## Preventative Maintenance

To proactively avoid hazards caused by the breakdown of equipment, tools and machinery, employers should also develop a Preventative Maintenance Policy and equipment maintenance schedule. Equipment breakdowns can cause injuries, property damage, and costly production delays, all of which can be reduced by the implementation of a preventative maintenance system. The standards for the maintenance program should be based on the manufacturer's recommendations, industry standards, past incidents, and data from company hazard assessments.

A good preventative maintenance program will also include a requirement for workers to inspect their tools and equipment regularly. If a tool or piece of equipment is found to be defective, it should be taken out of service (either be discarded, or tagged as defective and sent for repair). And employer policy should also include a requirement to purchase tools and equipment in accordance with CSA, provincial, and industrial standards.

Self-Evaluation Questions	
3.1	Have hazard controls been identified and implemented: <ul style="list-style-type: none"><li>• Engineering?</li><li>• Administrative?</li><li>• Personal Protective Equipment?</li></ul>
3.2	Are workers involved in establishing the control of health and safety hazards?
3.3	Are employees using controls developed for identified health and safety hazards?
3.4	Is there a process for maintaining equipment and preventing the use of defective equipment?
3.5	Does management enforce the use of engineering controls?
3.6	Does management enforce the use of safe work procedures, rules, and work practices?
3.7	Is the required PPE available?
3.8	Where PPE is used as a method of control, are employees trained in the use, care, and maintenance of the personal protective equipment?
3.9	Is the use of PPE enforced?

## 4. Ongoing Inspections

An ongoing system for conducting work site inspections is another important element of a Health and Safety Management System. Regular inspections will:

- Proactively identify potential hazards that may not have been previously noted,
- Confirm the effectiveness of controls already in place, and
- Demonstrate commitment to health and safety.

### Inspection Program

An inspection program should clearly outline what needs to be inspected, who will be involved, how often the inspections should be performed, and who is responsible for corrective actions and follow-up. The results of the inspection program will provide information on whether the hazard assessment requires review, preventative maintenance programs are effective, and employer training programs are adequate.

When developing an inspection program consider the following:

- Specifically identify what needs to be inspected. The results of the formal hazard assessment and hazard control process can be used to determine what equipment and work sites will need to be inspected. Also check the OHS legislation to determine if there are specific inspection requirements relevant to the nature of your work
- Include a regular frequency for inspections inside the Inspection Policy. The frequency will be determined by the nature of the employer's business, but it is recommended that work sites be inspected at least once a month.
- Determine who will be assigned the responsibility to conduct inspections. This will vary depending on what is being inspected. In general, work site inspection tours will be performed by a team. Inspections of specific pieces of equipment can be done by an individual, competent worker. If there is a health and safety committee at the site, they should be involved in the inspection process.
- Provide training for those employees who are required to participate on inspection teams. Training courses are available through Certifying Partners and other safety training agencies.
- Make managers and supervisors responsible for ensuring regular inspection tours are completed, and that action is taken to correct any issues identified.
- Post the results of the inspections (both positive and negative findings) for workers to see, and include the expected timelines for follow-up action.

### *Inspection Forms*

Developing a standard inspection form to suit the employer's specific needs can be a good way to gather consistent results, allow for the easy maintenance of inspection records, and collect data that can be analyzed later for trends. The format can be as simple or complex as needed to inspect the specific work site or piece of equipment, but at minimum, all inspection forms should include:

- a checklist of items to be inspected
- a description of the hazards to look for
- space to list suggested actions required to remove or control the hazard

- name of the person responsible to correct the problem
- date by which the action is expected.

The inspection form is not intended to generate a "to do" list for the maintenance department. The person named as responsible for inspection follow-up should be the supervisor in control of the area where the hazard is found. The area manager has overall responsibility for ensuring corrective action has been taken, and should review and sign-off all inspections. Management involvement in both follow-up and the inspections themselves will send the message to workers that the organization recognizes the importance of the Health and Safety Management System (see the Appendix for a sample Work Site Inspection Form).

## Types of Inspections

### *Formal Inspections*

The team or individual conducting the formal inspections will use the standard inspection form to record items identified during the inspection. The form will serve to prompt inspectors to check for specific items, and will create a consistent standard for the gathering of information. The inspection team will be looking for:

- **Unsafe Conditions:** slippery floor, poor lighting, cluttered work area, slipping hazards, missing guards, etc.
- **Unsafe Actions:** improper use of machinery or equipment, workers not wearing personal protective equipment or following safe work procedures, etc.
- **Health Hazards:** dangerous chemicals, dust exposure, noise, toxic waste, etc.

Once the formal inspection has been completed, an inspection report will be written, and reviewed by the inspection team. The items identified on the inspection report should be assigned and ranked in order of importance, using the A, B, C system to prioritize hazards and ensure those with the highest potential for causing injury are corrected first.

- **A Hazards:** those that pose an imminent danger and require immediate correction
- **B Hazards:** those that are not imminently dangerous, but pose a significant hazard and must be corrected as soon as possible
- **C Hazards:** those that are a low hazard, and should be addressed when time allows

Any A Hazards identified must immediately be brought to the attention of the appropriate supervisors and corrections made. To address identified B or C Hazards, a system must be put in place to ensure timely and appropriate corrective action. Copies of the inspection report must be given to senior management, the Health and Safety Committee, and the supervisors of the areas being inspected. A copy of the report, including both negative and positive findings, should be posted for workers to review, and a copy should be kept on file for the next inspection team, so that they can identify any repeat items. Records of inspection tours are important sources of information and should also be kept for future reference and statistical review.

### Informal Inspections

Informal, or "mini" inspections are carried out by workers, supervisors, and managers, and do not involve a formal report or a specific schedule. Some examples of informal inspections include:

- A manager walking through the shop may take the opportunity to verify that workers are following safe procedures, using safety equipment, or following healthy work procedures, and provide feedback on their safety performance.
- A tradesperson conducts a routine check on their tools, looking for defects and maintenance needs prior to starting work each day.

The results of an informal inspection will be acted on immediately, required changes will be made on the spot, and worker feedback (both positive and constructive) will be made verbally. Inspection information will only be recorded and reported if the situation requires it. In most cases, the required action only takes a few minutes. Regularly performed informal inspections can be an effective health and safety tool. Both positive and negative observations should be noted. A few words of praise can go a long way to reinforcing healthy and safe behaviour at the work site.

### Inspections versus Hazard Assessment

It is important to understand that an inspection does not replace the hazard assessment. Formal Hazard Assessment allows for the systematic identification of hazards, the assessment of the hazards, and the implementation of controls. Inspections are not intended to assess hazards, but to monitor how well controls are working, and if they're being used effectively. Inspections are intended to monitor work site conditions, and while they may identify a hazard missed by the formal hazard assessment process, this is not the primary reason why they are conducted.

Self-Evaluation Questions	
4.1	Is there a formal written process that includes frequency of formal inspections by: <ul style="list-style-type: none"><li>• Managers?</li><li>• Supervisors?</li><li>• Workers?</li></ul>
4.2	Are formal health and safety inspections carried out in accordance with the process by: <ul style="list-style-type: none"><li>• Managers?</li><li>• Supervisors?</li></ul>
4.3	Are workers involved in the inspections?
4.4	Are the individuals designated to conduct formal inspections given appropriate training?
4.5	Is a site/operation specific checklist used during the inspection?
4.6	Are inspection reports reviewed and signed off by management?
4.7	Are deficiencies identified in the inspection report corrected in a timely manner?
4.8	Is there a system in place whereby employees can report unsafe or unhealthy conditions and practices?
4.9	Does the system for reporting unsafe or unhealthy conditions and practices ensure action is taken by management in a timely manner?

## 5. Qualifications, Orientations and Training

Worker training is a key element of any Health and Safety Management System. Employers must communicate with workers so that they understand that health and safety is considered an important part of the work process, and they are aware of how to do their jobs safely. Well trained and competent workers not only perform their jobs safely, but are more productive. Training will pay off immediately.

Employers should also be aware that some training is required by law. If the work being carried out is considered hazardous, Alberta Occupational Health and Safety legislation requires the employer to ensure the worker is competent or is under the direct supervision of a competent worker. A competent worker is one who is adequately qualified, suitably trained, and has sufficient experience to carry out the work safely. Depending on your industry and the type of work you do, specific types of training may be required, therefore, it is important to check the legislation to ensure you are meeting all legal requirements.

### Worker Training

No matter what job a worker is hired to complete, training is required for them to do the job well and to stay safe and healthy while doing it. It is the employer's responsibility to ensure required training is completed. This could mean verifying the credentials of new workers who require specific qualifications to do the job (e.g. degree, diploma, certificate, driver's licence), providing job-specific training for new or re-assigned workers, and/or conducting orientations for all workers new to the site, or new to a specific area. Contractor qualifications may also have to be verified, and training or orientations conducted to ensure everyone working on the site is aware of how to work in a safe and effective manner, and not endanger those around them.

Training and orientations can be conducted in-house if those assigned to complete it are competent to do so. Job-specific training may also be completed through a mentor system: having an inexperienced worker paired with a competent worker who is familiar with how to do the job safely and efficiently. No matter how the training is done, the employer must keep records showing what training was given, when it was taken, who took it, and who facilitated the session. Recording these items will help support due diligence, and allow the employer to track re-certification and refresher requirements accurately.

### ***Orientations***

Given the fact that new and young workers experience the highest rate of injuries, the importance of a timely orientation and new worker training cannot be stressed enough. Workers with less than 6 months experience are 3 times more likely to be injured than those with a year or more of experience. And workers between the ages of 15 and 29 are 30% more likely to be injured on the job than older workers.

New employee orientations should be completed during the first week of employment, and before the new employee starts work. The orientation topics should be prioritized, and critical health and safety information should be covered on the first day of employment. Critical issues would include topics such as,

- Company policies
- Job responsibilities
- Company's responsibilities to provide a safe work place
- Specific job hazards and controls in place
- Incident notification/hazard reporting
- Worker responsibility to refuse unsafe work
- Emergency procedures



Safe work procedures and practices should also be reviewed during orientations, and if required, health assessments (such as hearing tests) may also be done at this time.

Also ensure that transferred or reassigned employees receive orientations before they start their new job, as they may face unfamiliar hazards in their new position. Be sure to document when the orientations were done, who conducted the training, and the names of the workers trained. You may also want to develop a checklist of the topics covered during the orientation (see sample Health and Safety Orientation Checklist in the Appendix), and some method for confirming worker understanding (e.g. short test, and/or employee sign-off).

Contractors should also be provided with an appropriate orientation before they start work. The depth of orientation for contractors will depend on the type of work and level of supervision provided. And visitors to the work site should receive a work site orientation to make them aware of the hazards and what to do if there is an emergency. At a minimum, have visitors sign in and provide them with an escort while they are on site.

### ***Job-Specific Training***

In many cases, workers will also require specific on-the-job training to do their jobs in a safe and effective manner. Using hazard assessment data, employers must assess which jobs require job-specific training, and ensure training is provided for the completion of tasks where specific health and safety hazards are known to exist. Employers must also determine who is competent to provide this training, and the supervision required until the worker is deemed competent.

Job-specific training should be provided to both new and transferred workers, and refresher training should also be held on a regular schedule.

<b>Self-Evaluation Questions</b>	
5.1	Is there a process in place to ensure that employees have the qualifications and training to perform their jobs in a healthy and safe manner?
5.2	Are critical health and safety issues addressed before the employee starts his/her normal job responsibilities?
5.3	Is the new employee orientation completed within the first week of employment?
5.4	Does the new employee orientation cover employer health and safety policies and procedures?
5.5	Do employees receive the job-specific training required to perform their jobs/assignments in a healthy and safe manner?
5.6	Is on-going training provided as required?
5.7	When employees are transferred or assigned new tasks, do they receive job-specific training?

## 6. Emergency Response Plan

A serious emergency (such as an explosion, fire, or flood) could seriously affect the operation of a business and put the health, safety, and livelihood of many employees in jeopardy. The best Health and Safety Management System cannot protect your company from all natural or unexpected disasters; however, having a good Emergency Response Plan (ERP) in place can reduce the severity and risk of loss. The action taken in the first few minutes of an emergency situation is critical. Knowing what to do and who to contact can save lives and reduce costs if disaster should strike.

Employers are required by law to establish a response plan for an emergency that may require rescue or evacuation. The employer must consult with affected workers in establishing the ERP, must subject it to regular review, and must ensure that it is current.

### Building an ERP

The types of emergencies to which a business may be vulnerable can be influenced by the nature of the business, the location, the type of work, the weather patterns in the area, or even the nature of neighbouring businesses. Large, complex employers may consider hiring a qualified consultant to help them develop their ERP, but in most cases, employers can build a comprehensive ERP on their own

#### *Identify Potential Emergencies*

Begin building the ERP by identifying all potential disasters or emergency situations the business may face. This can be done by reviewing hazard assessment documents and the results of incident investigations, and considering the potential for hazards around the facility. Assess the potential for harm to people, property, equipment, and the environment for each potential emergency situation.

The types of hazards to be addressed by an ERP need to include both work-related hazards, and hazards which may be introduced onto the work site by one of the following sources:

- natural disasters
- man-made events
- technological failures

Make sure plans fit the worst case scenario. Once all potential emergencies have been identified, plans for dealing with them must be developed, communicated, and tested.

#### *Evacuation*

Develop evacuation procedures for the work site, and establish safety zones and muster points where people being evacuated can gather. Assign individuals to assist mobility-impaired persons in the event of an emergency. Install alarm systems to be used in the event of an emergency, and ensure they suit the specific needs of the business (e.g. a siren may not be heard in a noisy environment, and flashing lights would have to be installed to ensure they are visible by everyone they are designed to warn).

### ***Communication***

Specific communication systems for use in the event of an emergency should be developed, and emergency contact numbers posted where they are most likely be needed (see the sample Emergency Contact List in the Appendix). Include the names of local medical people who could respond quickly in an emergency, and ensure these people know that they are on your list.

### ***Training***

All employees should be trained in what to do should a specific emergency situation occur, as it is critical that everyone understands their responsibilities. Include basic emergency response information (e.g. alarms, muster points, emergency exits) as part of the new worker safety orientation. Staff assigned specific emergency response duties must also receive whatever specialized training they need to ensure they are competent to perform their assigned tasks. Employees assigned to be first aiders, fire fighters, floor wardens, etc., must know how to respond appropriately, and how to use any emergency equipment required. Those with less responsibility in the event of an emergency, must at a minimum know how to respond to an alarm, and whom to call for assistance. Everyone should know who will take charge and coordinate the evacuation, who will sound the alarm, and who is trained in first aid.

### ***Emergency Equipment***

It is important to know what emergency equipment must be available on site, and to maintain it in good operating condition. Requirements will vary depending on employer site locations, and the nature of their work. Consult the OHS legislation to determine minimum requirements for first aid kits, fire extinguishers, water hoses, emergency showers, emergency lighting, breathing apparatuses, ladders, stretchers, emergency communication equipment, etc.

Position the emergency equipment in accessible locations, and establish a regular schedule to service and inspect all emergency equipment, including first aid and rescue equipment.

### ***Disaster Services***

For certain types of emergencies, local disaster services and other emergency response agencies may be contacted for assistance. If required, the employer's response plan should be reviewed with local emergency response agencies to ensure they have all the information they need to mount an effective response in the event of an emergency.

### ***Drills***

In order to determine if emergency plans are adequate, and to test employee response, drills must be held at least annually. Drills should be held for all types of emergency, and should include all work areas and all shifts, so that all staff has a chance to participate and practice their expected response. Records of both drills and actual emergencies should be kept and reviewed after each incident/exercise to identify areas where improvements can be made.

## Self-Evaluation Questions

6.1a	Is there a written ERP for each work site appropriate to the hazards at the site?
6.1b	Does the plan include: <ul style="list-style-type: none"> <li>• Communication procedures?</li> <li>• Emergency phone numbers?</li> <li>• A list of responsible emergency response personnel?</li> <li>• Evacuation procedures?</li> </ul>
6.2	Do employees at the site understand their responsibilities under the plan?
6.3	Are employees given emergency response training appropriate to their individual responsibility?
6.4	Are emergency response drills conducted annually or more often as required?
6.5	Are emergency response records kept?
6.6	Are all records of emergency responses (including drills) reviewed to correct deficiencies?
6.7	Is the appropriate number of employees trained in first aid as required by legislation?
6.8	Do first aid supplies and facilities meet legislated requirements?

## 7. Incident Investigation

If an unplanned, unwanted event does occur on the work site, it must be investigated so that steps can be taken to reduce the likelihood that the same incident will happen again.

The importance of reporting all incidents, including near misses, should be reflected in a formal policy and procedure to which workers must be trained. Near misses often go un-reported and are not investigated, however, useful information can be gathered by investigating these close calls, and employees should be encouraged to report near miss situations. Since workers may neglect to report an incident out of fear or embarrassment, management must actively encourage reporting, and ensure that investigations focus on fact finding, not fault finding. In other words, investigations should never be used as a finger pointing exercises to assign blame, but rather to determine the root causes and prevent a recurrence.

A good investigation program will collect the facts, determine the root causes, establish controls to prevent recurrence, identify trends, and allow the organisation to demonstrate commitment.

### ***Incident Reporting Policy***

Begin by creating a written standard that includes the requirement for reporting all incidents, workplace-related illness, and near misses.

A specific timeframe for reporting and the person to whom incidents should be reported should also be included in the policy. A standard report form should also be developed to capture the details important to the investigation (see the sample Incident Report Form in the Appendix).

All employees should be trained to these standards through employee orientations, and periodic refreshers should be included in team or safety meetings to reinforce the importance of incident reporting.

### ***Incident Investigation Policy and Procedures***

A policy statement should also be developed to dictate the basic standards for the *investigation* of workplace incidents. This can be developed as a separate policy, or in combination with the Incident Reporting Policy.

A standard procedure for investigations must also be in place, and should include:

- The timeframe for investigations (as soon as possible after the injured have been cared for, and all of the potential hazards are removed)
- Who will be responsible for leading the investigation, and the training required (e.g. the supervisor responsible)
- A requirement for participation from all levels (including managers, supervisors, Health and Safety Committee members, and other workers who might bring specialized skills or knowledge to the investigation process)
- Basic steps for conducting the investigation
- A requirement to identify indirect, direct, and root causes
- A requirement to identify corrective action, a specific person responsible for follow-up, and an associated timeline for completion
- A requirement for senior management review and sign-off once investigations are complete and follow-up action has been taken to prevent a recurrence of the incident

Employees should all be made aware of investigation policies and procedures, and investigation results should be routinely shared with employees at safety meetings, posted at the work site, and/or emailed to employees and other business units. Communication of the investigation results is key to preventing a similar occurrence elsewhere in the organization.

## **The Legal Requirements for Incident Investigation**

Alberta Occupational Health and Safety (OHS) legislation contains several legal requirements around incident investigation, and employers need to be aware of their legal responsibilities should an incident occur on their work site:

- The OHS Act requires an employer to investigate any serious injuries. In addition, employers have a responsibility to report specific types of occurrences to Occupational Health and Safety (OHS). These include any fatalities or injuries where a worker is hospitalized for two or more days, and incidents involving fire, flood, explosion, building collapse, and collapse/upset of a crane, derrick or hoist.
- First Aid legislation requires that all injuries treated at the work site be recorded, and the record be treated as confidential and kept in a secure area for three years.
- The Alberta Workers' Compensation Act requires that certain forms be filled out by the employer and the worker when a worker is injured or ill due to work. Contact the Alberta Workers Compensation Board for more information, and training opportunities.

If the injury is serious, or had the potential to be serious, WHS may also conduct an investigation at the work site. When this happens, all employees are required to co-operate with the investigation.

## **The Incident Report and Investigation Forms**

Employers should develop standard incident report and investigation forms for use at their work sites (see the Appendix for a sample Incident Report Form). A report form is important to ensure that all relevant information is captured and maintained. The incident report form should be completed immediately after the event by the worker(s) involved, and a copy given to the worker(s). The employer's copy of the report form is used to initiate the incident investigation and should be maintained on file.

A suitable incident investigation form can be developed in-house to meet the specific needs of the organization (see the Appendix for a sample Incident Investigation Report). A well-designed, standard form will prompt the investigation team to follow correct investigation procedures, and will lead them to the identification of the root causes and appropriate follow-up action.

## Self-Evaluation Questions

7.1	Is there a written policy that requires the reporting of occupational incidents and illnesses?
7.2	Are employees aware of their responsibilities to report work-related incidents and illnesses?
7.3	Is there a written procedure for investigating occupational incidents and illnesses?
7.4	Is there an investigation report form?
7.5	Have the persons conducting investigations been trained in investigation techniques?
7.6	Are workers involved in the investigation process?
7.7	Do investigations focus on: <ul style="list-style-type: none"> <li>• Identifying root causes?</li> <li>• Recommending corrective action?</li> </ul>
7.8	Are supervisors held responsible and accountable for the investigation process?
7.9	Are investigation reports reviewed and signed off by management?
7.10	Are completed investigation reports/results shared with employees?
7.11	Are corrective actions taken to prevent recurrence?

## 8. Program Administration

Program Administration ensures that all aspects of an operation's Health and Safety Management System are recorded, tracked, and maintained. A record tracking system should be set up to allow for statistical analysis, and the identification of trends that may identify system areas in need of improvement. Examples of records that need to be maintained include:

- employee training records
- work site inspection records
- incident investigation reports
- preventative maintenance records
- health and safety meeting minutes

Health and safety program records should be kept for a minimum of three years.

### Communication

It is important to involve everyone in the Health and Safety Management System and provide an opportunity to give feedback on health and safety issues at the work site. Two-way communication can be introduced to the site through health and safety meetings, training sessions, health and safety committee meetings, field-level hazard assessments, etc. All suggestions from workers should be recorded, and some recognition of the worker's involvement and co-operation should be given.

### Accountability

The Program Administration element also involves the development of a process for measuring accountability inside the employer's health and safety system. It is important that everyone understand their responsibilities for workplace health and safety:

- the employers hold the ultimate responsibility, and are legally and morally responsible for what happens on their work sites.
- supervisors have the administrative responsibility, and must ensure that required training, supervision, enforcement, etc. are maintained and the desired results are achieved.
- workers have the immediate responsibility to take the required training, use the assigned controls, follow all rules, and participate where required in the health and safety program.

Policies and standards should identify who is responsible for what, the date by which actions must be completed, and the follow-up required to ensure that action taken was effective. Measurable goals and objectives and assigned accountability should be used to drive health and safety performance.

### Monitoring Statistics

Employers must develop and maintain an ongoing system for recording events in order to compare statistics over a period of time. There are two types of performance measures an organization can use to determine their level of health and safety performance. *Leading indicators* measure the activities used by the organisation to reduce the likelihood of an incident. *Lagging indicators* analyze the frequency, severity, and type of incidents.



Employers should maintain and analyse statistics to help identify trends in both leading and lagging indicators. Leading indicators that can tell you if systems are working as expected could include:

- records of inspections - Are inspections are being performed as required?
- meeting minutes - Are safety meetings are being held according to the schedule?
- investigation reports - Are appropriate causes being identified? Are corrections being made in a timely manner?

Maintaining statistics over time will allow the identification of trends which can be useful in determining where system changes may be needed. Lagging indicators that can be useful to identify areas in need of improvement could include:

- the number, severity, and cost of injuries and other incidents at the work site
- the number of days lost due to absenteeism
- maintenance records

To further identify where improvements can be made, employers should, where possible, compare their company's health and safety records to those of similar companies in the same industry. Conducting regular health and safety audits, both internal and external, should also be part of an annual evaluation system.

## **Audit System**

Whether completed by internal or external auditors, annual audits give employers a means of identifying how their systems measure up against a recognized standard. Audit results communicate program successes, as well as identify areas in need of improvement, and can form the basis of action plans designed to make specified individuals accountable for corrective action within set timelines. Management should follow up on the status of the action plan on a regular basis to ensure action items are being completed. Since most organisations are constantly changing, it is important that the Health and Safety Management System adapt through continual improvement of work processes and activities.

## Self-Evaluation Questions

8.1	Is there a system to ensure: <ul style="list-style-type: none"> <li>• Health and safety issues are communicated to employees?</li> <li>• Feedback on health and safety issues from employees?</li> <li>• Follow-up on health and safety issues?</li> </ul>
8.2	Does the employer have a system to control contractor health and safety?
8.3	Does management participate in the planned health and safety meetings?
8.4	Are records of health and safety meetings kept?
8.5	Are records pertaining to the organization's health and safety system kept for a minimum of three years?
8.6	Are health and safety statistics maintained?
8.7	Are records or statistics analyzed to identify trends and needs?
8.8	Is the health and safety system evaluated at least annually through the use of an audit process?
8.9	Has an action plan been developed as a result of the previous audit?
8.10	Has the action plan been implemented?

# APPENDIX

## *Sample Forms*

# COMPANY HEALTH AND SAFETY POLICY

**Company Name** is committed to the Health and Safety Management System that protects our employees, contractors and the public.

Employees at all levels are responsible and accountable for *the company's* health and safety. Active participation by everyone, at all times, and in every job is necessary for the health and safety excellence this company expects.

Management will set an example and provide leadership in health and safety, set health and safety policies and procedures, and provide training, equipment and adequate resources to perform the job safely.

Workers will follow all rules, safe work policies and procedures, and cooperate with the employer in working towards improved health and safety at work.

Workers and management at all levels will be familiar with the requirements of the Alberta Occupational Health and Safety legislation as it relates to their work.

Our goal is a healthy and injury free workplace for all employees. By working together, we can achieve this goal.

---

**Name and Title of Most Senior Manager**

---

**Date**

# ASSIGNMENT OF RESPONSIBILITY

## Manager

- Establish a health and safety policy
- Set health and safety goals and objectives
- Set a standard of performance and receive information regularly
- Demonstrate a visible commitment to health and safety
- Communicate expectations for health and safety to workers
- Ensure operations are compliant with applicable legislation
- Provide adequate supervision and resources
- Ensure incidents are reported and investigated, and that corrective actions are taken
- Ensure inspections are conducted and corrective actions are taken where necessary
- Identify training needs and ensure proper training of workers
- Correct unsafe acts or conditions
- Enforce health and safety standards

## Supervisor

- Set a standard of performance and behaviour
- Demonstrate commitment to health and safety
- Communicate expectations for health and safety to workers
- Promote health and safety awareness
- Ensure training needs are identified and met
- Establish safe work procedures and practices
- Instruct workers in safe procedures and practices
- Hold regular team meetings
- Ensure proper maintenance of equipment, tools, and PPE
- Correct unsafe practices or conditions
- Conduct hazard assessments where required, and eliminate or reduce associated risks
- Ensure workers are aware of hazards and are trained to perform their job safely
- Enforce health and safety standards and positively reinforce good behaviour
- Conduct or participate in inspections
- Ensure incidents are reported and investigated, and that corrective actions are taken
- Comply with applicable legislation

## Worker

- Become familiar with the health and safety program
- Participate in the health and safety program and make suggestions for improvement
- Participate in all training offered by the employer
- Follow the employer's safety standards and comply with rules and legislation
- Report any unsafe conditions or acts to their supervisor
- Immediately correct unsafe conditions, if safe to do so and where possible
- Refuse to perform work when unsafe conditions exist
- Report all incidents and near misses to their supervisor
- Use required protective and safety equipment
- Inspect tools, equipment and vehicles before use
- Be familiar with the emergency response plan and location of first aid, fire fighting and communication equipment

## **Contractors, Subcontractors and Consultants**

- Implement and follow an effective health and safety program, or follow the health and safety program of the operating company
- Conduct work safely by ensuring workers are competent to do so
- Be aware of and meet the operating company's safety expectations
- Ensure work conducted complies with contractual agreements and regulatory requirements
- Provide the resources necessary to allow workers to complete their work safely

## **Visitors**

- Follow instructions of the supervisor or company escort
- Wear personal protective equipment at all times

*Promote accountability by making the safety performance of the worker, supervisor, and manager part of their performance review. Safety performance refers to actions that contribute to the implementation of the Health and Safety Management System.*



# HAZARD IDENTIFICATION AND ASSESSMENT WORKSHEET

**Job:**

**Department:**

**Date:**

**Prepared by:**

Inventory of Tasks (List tasks completed as part of this job)	Hazards (Safety and Health)	Consequence	Probability	Frequency	Risk Rating (C + P + F)

## Risk Rating Scale

Consequence Ranking (C)	Probability Ranking (P)	Frequency Ranking (F)
1 – Low	0 – Never Performed	1 – <10 Workers
2 – Minor	1 – Performed Infrequently	2 – 10 to 20 Workers
3 – Moderate	2 – Performed Frequently	3 – >20 Workers
4 – High		



# CRITICAL TASK WORKSHEET

**Job:**

**Department:**

**Date:**

**Prepared by:**

Rank	Risk Rating	Task	Hazards	Controls	Person Responsible / Date Completed
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

# WORK SITE INSPECTION FORM

<b>Location:</b>	<b>Date:</b>
------------------	--------------

**Inspection Team:**

Item	Condition	Recommended Action	Priority (A/B/C)	Person(s) Responsible	Estimated Completion Date	Actual Completion Date
------	-----------	--------------------	------------------	-----------------------	---------------------------	------------------------

**Work Area:**

Is the work area free from clutter and debris?						
Are floors clear and dry?						
Are exits free, clear, and marked?						
Are all walking and work areas adequately lit?						
Are handrails in good condition?						

**Equipment/Tools**

Are tools and equipment stored properly?						
Are guards in place?						
Are damaged tools/equipment tagged?						
Is furniture maintained?						

Item	Condition	Recommended Action	Priority (A/B/C)	Person(s) Responsible	Estimated Completion Date	Actual Completion Date
<b>Electrical Systems</b>						
Are lock-out systems available and (if applicable) in use?						
Are extension cords being used correctly?						
Are overhead power lines accounted for?						
<b>Emergency Systems</b>						
Are first aid supplies available and stocked?						
Are eye wash stations maintained and well identified?						
Is fire control equipment regularly inspected?						
Are fire extinguishers mounted and clearly identified?						
Are evacuation maps posted and current?						
<b>WHMIS</b>						
Is the MSDS up to date and available to all staff?						
Are chemicals stored and labeled properly?						

Item	Condition	Recommended Action	Priority (A/B/C)	Person(s) Responsible	Estimated Completion Date	Actual Completion Date
<b>Other(s)</b>						
<b>Reviewed By:</b>					<b>Date:</b>	

<b>Priority Ranking</b>	
"A" Hazards	To be corrected immediately
"B" Hazards	To be corrected within 48-72 hours of report
"C" Hazards	To be corrected within one week of report

## HEALTH AND SAFETY ORIENTATION CHECKLIST

<b>New/Transferred Employee:</b>	<b>Position:</b>
<b>Date Employee Started:</b>	<b>Date Orientation Started:</b>
<b>Supervisor:</b>	<b>Department:</b>

### ORIENTATION TO BE COMPLETED THE FIRST WEEK

Item	Yes	No	N/A	Date Completed
<b>Work Site Tour and Introductions</b>				
<b>Health and Safety Manual</b> Reviewed and discussed				
<b>Reviewed and Discussed Policies</b> <ul style="list-style-type: none"> <li>○ Health and Safety</li> <li>○ Drug and Alcohol</li> <li>○ Violence</li> <li>○ Enforcement</li> </ul>				
<b>Responsibilities</b> Reviewed and discussed responsibility to: <ul style="list-style-type: none"> <li>○ Refuse unsafe work</li> <li>○ Know about the hazards present in the workplace</li> </ul>				
<b>OHS Legislation</b> Reviewed and discussed				
<b>Hazards</b> Reviewed and discussed job-specific health and safety hazards				
<b>Training</b> Reviewed and discussed job-specific training required				
<b>WHMIS</b> Reviewed and discussed WHMIS program and location of MSDS				
<b>Emergency Plans</b> Location of exits, muster point, alarms and fire extinguishers				
<b>First Aid</b> Where to locate first aid treatment and supplies				
<b>Reporting</b> Reviewed and discussed incident reporting procedures				
<b>Personal Protective Equipment</b> Where to locate, care, maintenance and rules				
<b>Assigned Buddy:</b>				

### Sign below when orientation is complete

<b>Employee Signature:</b>	<b>Supervisor Signature:</b>
<b>Date:</b>	<b>Date:</b>

# INCIDENT REPORT # \_\_\_\_\_

**To be completed as soon as possible following the incident**

<b>Name:</b>	<b>Company:</b>																
<b>Occupation:</b>																	
<b>Date and time of incident:</b>	<b>Date and time reported:</b>																
<b>Classification:</b> <i>(circle all that apply)</i> <table style="width: 100%; text-align: center; border: none;"> <tr> <td>Major</td> <td>First Aid</td> <td>Vehicle Damage</td> <td>Spill</td> </tr> <tr> <td>Serious</td> <td>Medical Aid</td> <td>Property Damage</td> <td>Contractor</td> </tr> <tr> <td>Non-Serious</td> <td>Illness</td> <td>Security Incident</td> <td>Regulatory</td> </tr> <tr> <td>Near Miss</td> <td>Fatality</td> <td>Fire/Explosion/Flood</td> <td>Other:</td> </tr> </table>		Major	First Aid	Vehicle Damage	Spill	Serious	Medical Aid	Property Damage	Contractor	Non-Serious	Illness	Security Incident	Regulatory	Near Miss	Fatality	Fire/Explosion/Flood	Other:
Major	First Aid	Vehicle Damage	Spill														
Serious	Medical Aid	Property Damage	Contractor														
Non-Serious	Illness	Security Incident	Regulatory														
Near Miss	Fatality	Fire/Explosion/Flood	Other:														
<b>Location of Incident:</b>																	
<b>Detailed Description of Facts:</b> <i>(attach photographs and diagrams - use additional sheets if necessary)</i>																	
<b>Immediate Corrective Actions Taken:</b>																	
<b>Signature:</b>	<b>Date:</b>																

# INCIDENT INVESTIGATION REPORT # \_\_\_\_\_

(Attach to Incident Report)

## Worker Information

Full Time

Part Time

Contractor/Temp\*

Volunteer\*

Visitor

\* Enter name and contact information of organization:

Hours worked during the shift  
leading up to incident:

Hours worked 72 hours  
before the incident:

Date of hire:

Describe work experience:

## Site Information (Not Applicable )

Prime contractor:

## First Aid/Medical Treatment (Not Applicable )

Name of hospital  
or health care professional:

Details of injury or illness: *(type and body part)*

## Property/Vehicle Damage (Not Applicable )

Description of damage:

Estimated cost of damage: \$

**Other Information** (Not Applicable )

External investigating agency:

Witness # 1 contact information: (*attach statement*)

Witness # 2 contact information: (*attach statement*)

**Investigation**

Substandard actions or conditions:

Indirect causes:

Root causes:



Preventative Actions			
Item	Person Responsible	Target Date	Date Completed
Sign Off			
Investigating team:			
Employee signature:		Date:	
Supervisor signature:		Date:	
Management review:		Date:	

# WITNESS STATEMENT

Incident Investigation Report # \_\_\_\_\_

Name:

Occupation:

Employer:

Contact information:

Relevant experience with employer:

Duties at the time of incident:

Description of incident:

Signature:

Date:

# EMERGENCY CONTACT LIST

**Location/Address:**

**Telephone:**

**Prepared by:**

## EMERGENCY RESPONSE CONTACTS

Fire	9 - 1 - 1
Police	9 - 1 - 1
Police (non-emergency)	403-555-1234
Disaster Services	403-555-1234
Poison Control	403-555-1234

## COMPANY CONTACTS

President	403-555-1234
Vice President	403-555-1234
Safety Coordinator	403-555-1234
Building Maintenance	403-555-1234
Building Security	403-555-1234

## ALBERTA GOVERNMENT CONTACTS

Workplace Health & Safety <i>(24 Hours)</i> <i>(Reporting of serious injuries and fatalities)</i>	1-866-415-8690
ERCB	403-555-1234
Environment	403-555-1234

## OTHER CONTACTS

Power Company	403-555-1234
Telephone Company	403-555-1234
Gas Company	403-555-1234
Transportation of Dangerous Goods	403-555-1234
Power Company	403-555-1234
Other	403-555-1234
Other	403-555-1234

