NORTHWEST TERRITORIES & NUNAVUT

CODES OF PRACTICE

In accordance with the *Northwest Territories Safety Act* and *Occupational Health and Safety Regulations;* and *Nunavut Safety Act and Occupational Health and Safety Regulations*

March 2017

Hazard Assessment

WSCC Workers' Safety & Compensation Commission | ᐃᖃᓗᐊᔨᖏᑎᓂᒃ ᐊᑕᐊᖅᑐᑐᔨᓕᓂᖅ ᐊᒻᒪᓗ ᓇᓕᓕᐅᔪᓂᖅ ᖃᐅᔨᓴᖅᑎᑦ

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Hazard Assessment

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FOREWORD

The Workers' Safety and Compensation Commission (WSCC) produced this industry Code of Practice in accordance with subsections 18(3) and 18(4) of the Northwest Territories and Nunavut *Safety Acts*. The WSCC thanks the Government of Alberta for allowing the adaptation of content from their handbook on Hazard Assessment and Control for use in developing this Code of Practice.

The Code of Practice applies to all workplaces covered by the Northwest Territories and Nunavut *Safety Acts* and *Occupational Health and Safety Regulations*.

The Hazard Assessment Code of Practice relates to Sections 4 and 5 of the Northwest Territories and Nunavut S*afety Acts*, and to Part 3: Section 12, 13, and 21 2(b)(c) of the *Occupational Health and Safety Regulations.*

This code is in effect as published in the in the Northwest Territories *Gazette* and Nunavut *Gazette*, in accordance with the *Safety Acts and Occupational Health and Safety (OHS) Regulations.*

IN EFFECT DATES:

Northwest Territories: March 31, 2017
Nunavut: March 31, 2017

Chief Safety Officer, WSCC

Disclaimer

This publication refers to obligations under the workers' compensation and occupational health and safety legislation as administered by the Workers' Safety and Compensation Commission.

To ensure compliance with legal obligations always refer to the most recent legislation. This publication may refer to legislation that has been amended or repealed.

Check for information on the latest legislation at wscc.nt.ca or wscc.nu.ca, or contact WSCC at 1-800-661-0792.

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1 WHAT IS A CODE OF PRACTICE?

The Workers' Safety and Compensation Commission (WSCC) Codes of Practice provide practical guidance to achieve the safety requirements of the Northwest Territories and Nunavut *Safety Acts* and related *Regulations*.

As per subsection 18(3) of the Northwest Territories and Nunavut *Safety Acts*, "For the purpose of providing practical guidance with respect to the requirements of any provision of this Act or the regulations, the Chief Safety Officer may approve and issue such codes of practice as he or she considers are suitable for that purpose."

The WSCC codes of practice apply to workplaces in the Northwest Territories and Nunavut. The Chief Safety Officer approves codes of practice for use by all occupational health and safety (OHS) stakeholders. Codes of practice come into effect in each territory on the day they are published in the *Northwest Territories Gazette* and *Nunavut Gazette*.

Codes of Practice do not have the same legal force as the *Safety Acts* and related *Regulations*. A person or employer cannot face prosecution for failing to comply with a Code of Practice. However, in legal proceedings under the *Safety Acts* and related *Regulations*, failure to observe a Code of Practice may be a consideration when determining whether a worker or employer complies with the *Safety Acts* and related *Regulations*.

Employers and workers should follow the WSCC codes of practice unless there is an alternative course of action that achieves the same or better occupational health and safety outcomes.

A Code of Practice

- Provides practical guidelines.
- Adapts to individual work sites.
- May serve as evidence.
- Should be followed unless there's a better way.

2 DEFINITIONS

Due Diligence: the level of judgment, care, prudence, determination, and activity that a person or organization should reasonably be expected to do under particular circumstances.

First Aid: the immediate treatment or care given to a person suffering from an injury or illness until more advanced care has been obtained.

Frequency: used in statistical analysis, refers to how often a task occurs.

Hazard: any situation, thing or condition that may expose a person to risk of injury or occupational disease.

Hazard Assessment: the process followed to identify, assess, and eliminate or manage workplace hazards and risks to worker health and safety.

Incident: an occurrence arising in the course of work that could result in an injury or illness.

Likelihood: used in statistical analysis, refers to the probability an injury or illness will occur.

Manager: the person responsible for assigning and monitoring job duties.

Organization: a company, operation, undertaking, establishment, enterprise, institution, association, or a combination thereof that has its own management. An organization may be incorporated or unincorporated, public or private.

Personal Protective Equipment (PPE): Any clothing, device, or other article intended for use by a worker to prevent injury or to facilitate rescue.

Recommendation: a proposal for an appropriate course of action.

Record: a document that states results achieved or provides evidence of activities performed.

Risk: the chance or probability of a person getting harmed, or experiencing an adverse health effect if exposed to a hazard.

Severity: used in statistical analysis, refers to how extensive and serious an injury or illness is.

Supervisor: a worker who is authorized by an employer to oversee or direct workers.

3 INTRODUCTION

WHAT ARE HAZARD ASSESSMENTS

A hazard assessment is the process used to identify, assess, and control workplace hazards and the risks to worker health and safety. The assessment is an essential part of an organization's safety culture and safety management system.

Hazard communication begins with the worker's orientation and continues on a day-to-day, formal, and site-specific basis. Workers must be informed of the hazards they may encounter and the steps required to effectively control those hazards.

While used interchangeably at times, it is important to note for the purpose of hazard assessments the words hazard and risk are not the same. A **hazard** is any situation, thing, or condition that may expose a person to the potential of injury or occupational disease. A **risk** is the chance or probability of a person being harmed, or experiencing an adverse health effect if exposed to a hazard.

A hazard assessment is done through inspection of the work site and evaluation of the work processes and equipment. The two types of hazard assessment are formal and site-specific. Formal hazard assessments include all the tasks of all the positions within an organization. Site-specific hazard assessments are more focused and are directed towards a certain worksite at that moment.

The purpose of the hazard assessment is to help develop a plan that will identify hazards, assess risks, and develop controls based on specific workplace situations. Both employers and workers have a responsibility to point out potential health and safety hazards.

At work locations where activities and conditions change frequently, the supervisor or work team completes a site-specific hazard assessment before a shift or a task begins.

In the case of an employer whose operations change very little, they must still re-do the hazard assessment at least annually to ensure worker health and safety. This is a mandatory part of the monitoring and review stage and is just as important as the identification stage of hazard assessments.

See *Appendix A* for forms and checklists to use when identifying hazards and conducting a risk assessment.

4 ACTS, REGULATIONS, AND STANDARDS

Occupational Health and Safety Regulations
Northwest Territories and Nunavut

Part 3 GENERAL DUTIES
General Duty of Employers
12. An employer shall, in respect of a work site,
(a) provide and maintain systems of work and working environments that ensure, as far as is reasonably possible, the health and safety of workers;
(b) arrange for the use, handling, storage and transport of articles and substances in a manner that protects the health and safety of workers;
(c) provide information, instruction, training and supervision that is necessary to protect the health and safety of workers; and
(d) provide and maintain a safe means of entrance to and exit from the work site.

General Duties of the Worker
13. A worker shall, in respect of a work site,
(a) use safeguards, safety equipment and personal protective equipment required by these regulations; and
(b) follow safe work practices and procedures required by or developed under these regulations.

Occupational Health and Safety Program
21. (2) An occupational health and safety program for a work site must include
(b) an identification of hazards that could endanger workers at the work site, through a hazard recognition program;
(c) measures, including procedures to respond to an emergency, that will be taken to reduce, eliminate and control the hazards identified under paragraph (b);

5 FORMAL HAZARD ASSESSMENTS

From the office to the field, formal hazard assessments take a close look at the individual tasks contained within each position. A position, for example - car mechanic, is broken down into separate tasks and analyzed. The product is a detailed assessment that identifies hazards and risks of that position. The assessment helps create controls that management, supervisors, and workers enforce to reduce risks in that position.

The team approach, with a manager or supervisor leading the process of completing a formal hazard assessment, is best. The process can initially be time consuming, plus the resulting document is living and needs regular maintenance and updates. The steps for the formal hazard assessment process as are follows:

1.) **Positions** - List what workers do (what are the positions within the company/organization)
2.) **Tasks** - Figure out all the work tasks or activities each position performs
3.) **Hazards** - Identify the health and safety hazards for each task
4.) **Risks** - Assess and rank the risk level of each hazard
5.) **Control** - Determine ways to control (or preferably eliminate) the hazards
6.) **Implement** - Put controls into place and notify workers
7.) **Check-up** - Monitor and review to make sure controls are effective
8.) **Living Documents** - Review and update these documents regularly

5.1 POSITIONS

Identify what people in the organization do. Normally if multiple workers do the same thing (have the same position) they also have the same job title. Often positions do some, but not all, of the same tasks as another position - they would have different job titles but would be within the same discipline. A place to start looking for various positions and disciplines is by contacting the human resources department, or looking at the organizational chart/position list. An example position list for a grocery store would be:

- Deli Counter Staff
- Baker
- Butcher
- Grocery Clerk
- Purchaser
- Grocery bagger
- Inventory Manager

5.2 TASKS

Each position performs tasks that serve a purpose within the organization. Some tasks multiple positions complete, such as an office manager and a receptionist. Since both perform office work, they are in the same administrative discipline; a similar task they share is computer use.

If using the same example of an office manager and receptionist, a receptionist may also perform mail deliveries throughout the organization and the office manager may not. The best way to determine what tasks a worker completes is to talk to the workers currently doing that job, and their supervisor or manager. Spending time job shadowing the worker in the position will also reveal hidden tasks, which may not be reported because they are not regularly completed.

By keeping an adaptable record of the positions and tasks reviewed, the team completing the assessment can minimize duplication.

A task is different from the steps used to complete the task, and individuals completing the hazard assessment should be careful not to confuse them. If considering a grocery clerk position, a task they complete is stocking shelves. A task does not include climbing the ladder to stock the top shelf, which is a required part of the grocery clerk completing the task, but it is not the task itself. An example of the tasks a grocery clerk performs is below:

Task Record – Example (Supermarket Positions)

	Deli Counter Staff	Bakers	Butchers	Grocery Clerks	Purchaser	Baggers	Inventory Managers
Scanning Groceries				✓			✓
Bagging Groceries				✓		✓	
Stocking Shelves				✓			✓
Processing Payment				✓	✓		
Assisting Customers	✓	✓	✓	✓		✓	✓
Cleaning up Spills	✓	✓	✓	✓		✓	✓

5.3 HAZARDS

The hazard assessment process involves two main hazard types: safety hazards and health hazards. Safety hazards include any hazard that can cause an injury or disease to the worker in the position or to another worker in another position; it could also cause damage. This type of hazard is usually easier to identify than a health hazard, as the resulting injury or disease occurs shortly after exposure. An example would be a worker shoveling snow, falls and hurts their back because of slipping on the ice.

Health hazards are more difficult to pin point as they usually take longer to develop into an injury or disease, or cause damage. An example is asbestos, a product used mainly as an insulator due to its properties as an effective fire retardant. A usually non-dangerous product becomes a hazard once the fibres are disturbed and released into the air. The connection between mesothelioma, a form of cancer, and asbestos was not realized right away. Once the connection was made, Canada and other countries put restrictions on asbestos projects to protect workers and the public.

Hazards are broken down into four main categories: physical, chemical, biological, and psychosocial (also known as psychological). Each category has multiple hazards. Below is a non-exhaustive list.

1.) **Physical**
- Repetitive movements, lifting heavy loads, awkward postures, static positioning, vibrations, slips and trips, falls from heights, electricity, fire, temperature extremes and poor conditions (icy roads, landslides), violence (including self-harm and violence from customers or other workers), noise, minimal or poor lighting, sharp equipment, working around large machinery or equipment which moves, falling objects or projectiles, poorly designed or crowded workstations, confined spaces, animals and wildlife, suspended objects, and working alone.
- *Example*: Hearing loss can result from working around loud equipment without proper hearing protection.

2.) **Chemical**
- Wastes and byproducts, vapours, odours, gasoline, drugs and alcohol, corrosives, fumes, gases, cleaners, solvents, acids, heavy metals (mercury, arsenic, lead), and carcinogens.
- *Example*: Vapours from gases or fumes from metals can cause respiratory problems without proper respiratory protection.

3.) **Biological**
- Human sewage, human fluids or medical waste, moulds and mildews, animal droppings or fluids, insects, bacteria (cholera), viruses (including flu, measles), poisonous plants, allergens, parasites, and fungi.
- *Example*: Hospital workers can contract a virus or disease by coming into contact with contaminated fluids like blood, when not wearing correct PPE or following safe work practices.

4.) **Psychosocial**

- Odd hours, shift work or overtime, poor job fit, stress, inability to control work schedule/pacing or load, increased fatigue, bullying, harassment (sexual, physical, or verbal), menial tasks, emotionally draining work, intimidation, or other social structure problems (perceived unfairness, excessive persistent criticism, discrimination).
- *Example*: Traumatic experiences can lead to fatigue, stress, depression, inability to concentrate, and illness.

Within the hazard categories, there are also hazard sources. Equipment, materials, environment, and people all contribute to hazards and to the impact level on organizations, positions, and workers. Consider these sources when conducting a hazard assessment, as they will outline additional hazards and will affect the organization's ability to control individual hazards.

Organizations sometimes have insight into present hazards through established tools, systems, and programs. Near miss, incident, and inspection reports along with first aid and maintenance logs can help the assessment team detect any hazard patterns.

Below are some questions to ask during the assessment. Keep track of them and add organization-specific ones to improve and customize the assessment process:

1.) **Equipment**

- Do workers have the correct equipment to do their job safely?
- Is the equipment provided specific for the task, or is it used for convenience and affordability?
- Was the equipment properly installed as per the manufacturer's instructions?
- When was the last time the equipment was inspected?
- Is it maintained properly, on a regular schedule as per the manufacturer's instructions?
- Is there a system in place to address equipment replacement?

2.) **Materials**

- What materials are on site and used regularly?
- What materials are on site and not used regularly?
- Are materials stored and disposed of properly?
- Are materials handled and used properly?
- Have materials been adapted for secondary uses, outside their intended use?
- Are any materials controlled products?

3.) **Environment**

- What is the work environment for the positions undergoing assessment?
- Is there more than one environment in the organization (office, isolated community, shop/mechanical, surface, or underground)?
- Do some positions move into different environments throughout their work?
- Are there any additional hazards only the environment provides (extreme temperatures if working outdoors, or poor lighting if working underground?)

4.) **People**

- What is the training schedule like? Do workers undergo a detailed orientation and training early into employment? On their first day? Before using new equipment?
- Who completes the training? What are their qualifications? Are they taking their training duties seriously?
- Are workers receptive to training and do they understand the value of it?
- Are workers overtired during their regular workday or overtime?
- What is the purpose of the work, and how does it motivate the workers (do they need to work quickly to get the job done, or is the focus on quality)?
- Is there respect for safety in the workplace by the workers? Supervisors and managers? Employers and the organization heads?

5.4 RISKS

Once the hazards have been identified, establish the risk level of each. A risk is the chance that a hazard will cause an injury, create damage, or result in a loss. When assessing risk, the team conducting the hazard assessment must be objective and consistent as they look at two different factors:

1.) **Severity** – how serious would the situation be if something went wrong? Could it cause equipment damage, or stop work? Could it make a worker feel unsafe or uncomfortable? Could it result in a situation requiring the administration of first aid, a trip to the hospital or medical clinic, or possibly lead to death?
2.) **Likelihood** – what are the chances that something will happen? How often do workers perform the work that has this hazard associated with it? Are there conditions that increase the likelihood of an occurrence? Have there been incidents in the past in the organization? Have there been previous incidents in the industry?

By assessing the hazard severity and likelihood, the hazard assessment team can rank and prioritize hazards to apply resources (financial, time, energy, and people). Immediately address hazards that are likely to occur and involve severe consequences, and deal with unlikely and non-severe hazards afterwards.

Equally assessing hazards ensures the correct prioritization of the hazards. The best way to minimize personal interpretation of likelihood, severity, or frequency is to make legends that are as specific as possible. The legends chosen for an organization do not need to match those below, it can have its own industry specific criteria, but the legends do need to be applied equally to each hazard.

A simple way to assess risk is to assign numbers. When assessing likelihood consider whether the hazard is:

1 **Unlikely to happen** – this has never happened in the industry or the workplace in the past or is unlikely to occur.
2 **May happen** – it has occurred before in the industry or workplace, or could occur at some point.
3 **Likely to happen** – has occurred multiple times, is an ongoing issue, and is likely to occur eventually or even soon.

When assessing severity, determine whether the hazard is:

1 **Minimal** – if it happens, someone may be uncomfortable or require first aid.
2 **Minor** – this hazard could result in a trip to the hospital/or medical centre for someone, would result in time loss or equipment damage.
3 **Serious** – could kill someone or cause a permanent disability.

The assessment team should note that in practice, neither likelihood nor severity can be estimated without some level of inaccuracy.

Determine the risk level by multiplying the likelihood and the severity. Combining these values in a matrix or multiplying them provides an estimate of risk.

For example a hazard that is both serious (3 - Severity) and may happen (2 - Likelihood) results in a risk of 6.

Likelihood X Severity = Risk
2 X 3 = 6

Risk Matrix

		Likelihood		
Severity		Unlikely to happen 1	May happen 2	Likely to happen 3
	Minimal 1	**1**	**2**	**3**
	Minor 2	**2**	**4**	**6**
	Serious 3	**3**	**6**	**9**

Once the risk level is established, the assessment team should consider the frequency of the hazard when establishing priority. When the frequency of a hazardous task increases so does the worker's exposure. The levels of frequency (the percentage of exposure time during the completion of a task) are as follows:

1 **Rarely** – this hazard is a risk to the worker 0 - 5% of their shift.
2 **Occasionally** – this hazard is a risk to the worker 6 – 33% of their shift.
3 **Frequently** – this hazard is a risk to the worker 34 – 66% of their shift.
4 **Constantly** – this hazard is a risk to the worker 67 – 100% of their shift.

The way to determine the hazard priority is to do an additional calculation that includes frequency, much the same as the one done to determine risk level.

For example, a risk with a rating of 6 and a frequency of 4 has a hazard priority level of 24 out of a possible 36.

Risk X Frequency = Priority
6 X 4 = 24

		Frequency			
		Rarely (0-5%) 1	Occasionally (6-33%) 2	Frequently (33-66%) 3	Constantly (66-100%) 4
Risk Level	1	**1**	**2**	**3**	**4**
	2	**2**	**4**	**6**	**8**
	3	**3**	**6**	**9**	**12**
	4	**4**	**8**	**12**	**16**
	6	**6**	**12**	**18**	**24**
	9	**9**	**18**	**27**	**36**

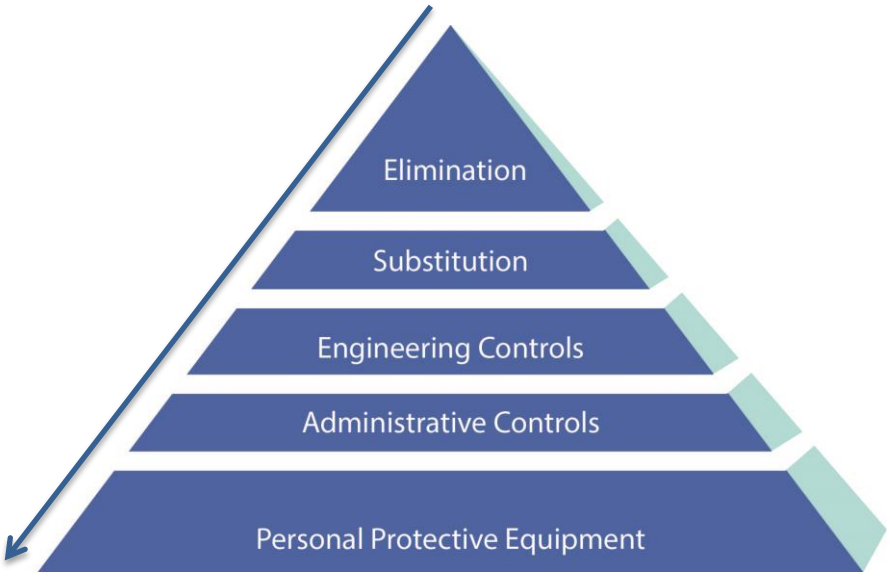
A rating of 1 is considered a low priority risk and a rating of 36 is a high priority risk. A hazard scored as a lower priority risk is not a 'non-risk'. The hazard still presents a risk to workers and requires addressing. The scale helps identify which hazards to address immediately due to their increased likelihood, severity, or frequency (prioritizing the list).

5.5 CONTROL

Hazard controls are measures taken to eliminate or reduce the risks of hazards in the workplace. The hazard assessment process establishes the probability that a hazard could lead to an incident and how serious it could be. The assessment team must choose an appropriate solution for each hazard, to eliminate or reduce the risk of injury or damage.

There are five basic ways to control hazards. These controls form a hierarchy. This means that the first control: elimination, is the first control to consider. If eliminating the hazard is not possible, then the next control is substitution, then engineering, and administration until the implementation of the final control, personal protective equipment (PPE) as a last resort.

Sometimes in order to protect worker health and safety, several controls must be put in place.



5.5.1 Elimination

Eliminating the hazard is the best method of control. It is the process of eliminating the task, condition, equipment, chemical, or act causing the hazard.

- Removing objects and materials that could be tripping hazards.
- Removing the need for equipment assembly to take place in a restricted space indoors, and instead completing the task in the field.

5.5.2 Substitution

Substituting a work method, person, substance, tool, or piece of equipment for a less hazardous one.

- Substituting chemical cleaners with less toxic agents.

5.5.3 Engineering

Engineering controls are methods built into the design of a worksite, equipment, or process to minimize, eliminate, or contain the hazard. They are very reliable with proper design, use, and maintenance since they require little to no effort from the worker.

- **Isolation:** Keep the hazard away from workers using control rooms, machine guards, protective barriers and shields, security fences, guardrails, and clearance distances.
- **Process:** Use machinery to perform a job activity or process to reduce risk to workers, such as automating a process to minimize the number of workers handling toxic materials.
- **Ventilation:** Provide ventilation to improve the air quality to an acceptable and safe level by removing or diluting air contaminants.

5.5.4 Administration

When it is not practical to eliminate hazards, use administrative controls. These controls limit the worker's exposure to a hazard. They do not eliminate the hazard, but they provide an acceptable way to work around the hazard. Administrative controls often work with other control measures, for example providing training for PPE or safe operating procedures for equipment.

- **Reduction:** Reduce the frequency each worker performs a hazardous task.
- **Rotation:** Rotate workers to reduce exposure time.
- **Training:** Train workers to recognize the hazards and employ safe work practices.
- **Maintenance:** Establish procedures for ongoing preventative maintenance of equipment and facilities.
- **Inspections:** Establish regular formal safety inspections and safety audits.

5.5.5 Personal Protective Equipment (PPE)

If unable to eliminate or reduce the risk of a hazard to an acceptable level, protect the worker from exposure. This protection requires the worker to wear or use appropriate personal protective equipment. PPE is the last line of defense and a critical part of a health and safety program. Workers must receive training before using PPE.

5.6 IMPLEMENT

With the ranking system in place and the hazards prioritized, the assessment team can begin acting on the identified hazards. Some may be as simple as using a cover to prevent a cord from becoming a tripping hazard. Other hazards may need more discussion to find the most appropriate solution for the organization and the workers. Use temporary solutions to quickly address a hazard, if permanent solutions require extended periods to implement.

Communicate
Supervisors and managers must inform workers of any hazards they may encounter, and the steps to control those hazards. If possible, involve workers in deciding effective strategies for eliminating or reducing hazards. Ways to effectively communicate with workers can include a combination of worker mentorship, orientation and training, tailgates/safety meetings and toolbox talks, or internal e-mails or communication (newsletters). This is a good opportunity to remind workers that they must report hazards, injuries, and near-misses to their supervisor.

Document
Document the entire process. Documentation should include dates, a description of the control method(s), the person responsible for implementation, and when the control takes effect.

Proper fit
The system for controlling hazards and risks must suit the organization. Develop work processes, such as safe work procedures, to ensure the safety of workers at a specific work site. The size and the type of organization will influence decisions about the kind of systems, procedures, and controls to use.

Manage

The process is easier to manage when the organization is divided into areas. Prioritize actions according to those areas, and outline methods for each:

- Specific work processes (machining parts on a lathe)
- Work locations (warehouse/office/kitchen)
- Work roles (nurse/mechanic/window washer/receptionist)
- Production or service delivery (drum cleaning/classroom teaching)

Focus on priorities

When deciding on priorities for action, focus first on areas that have the potential to cause the most harm, or cause harm most often (ranked as highest risk). Check the tables and results covered in the risks section and follow accordingly.

Special hazards

Expertise

The hazard assessment team may encounter special hazards beyond the scope of their combined experience. Some examples include improper workstation design, specialty chemicals and radioactive materials. Recognize limitations and seek outside expertise to assist in developing controls.

Emergency

Prevent an emergency. Identify and control hazards before something goes wrong. Emergency situations can happen even when all precautions are taken and every attempt is made to eliminate or control a hazard. Everyone at the site needs to know the workplace emergency response plan. Test worker knowledge by running scenario drills appropriate to the worksite.

5.7 CHECK-UP

Controls need regular monitoring to make sure they are protecting the health and safety of workers. Follow-up to confirm the control method(s) implemented effectively eliminate, or reduce the hazard. It is also important to review hazard assessments annually. This ensures changes in the workplace do not introduce new hazards, and will identify if a hazard with a previous low priority risk has become a higher priority.

Maintain effective controls

- Assign responsibility and accountability for health and safety: People are more likely to follow through and maintain procedures when all levels of management are held responsible.
- Regularly communicate: Hazard controls work more effectively with ongoing consultation and discussion with workers.
- Effectively communicate: Hazard controls are more effective when all workers understand the language. Use industry relevant signs and symbols, but avoid slang or complex terms that not all workers may understand.

Training and competency

Hazard control depends on people having the right training and competency to do a job safely. Provide training to maintain competencies as well as ensure new workers are completing tasks safely.

Keep records

Keeping records of implemented controls has many benefits:

- Helps to target training for specific or key hazards
- Provides a basis for making new safe work procedures
- Gives a base level of information when changes require new control measures
- Allows new workers to understand previous decisions about controls
- Shows shareholders and authorities that OHS hazards and risks in the organization are under control

Report hazards

Section 5 of the Northwest Territories and Nunavut *Safety Acts* requires workers to take reasonable precautions to ensure their own safety and the safety of others; this includes reporting hazards to their supervisor. Workers must report verbally, or complete a simple form available at bulletin boards or other obvious places. By reporting hazards, workers identify items that need attention. This process is an effective way to prevent injuries.

5.8 LIVING DOCUMENTS

Consider the hazard assessment report a living document; it is going to change over time. By using the data gathered through the check-up stage, those in charge of program maintenance will be able to make necessary changes as new information becomes available. Knowing the state at which the hazard assessments are within the organization is the only way an assessment team can identify areas of improvement, and focus their attention in an effective manner. Date each assessment, and any revisions or updates to demonstrate due diligence.

Some events that may trigger the need to revise a hazard assessment include:

- start of a new project
- change in the work process
- change or addition to tools, equipment, machinery, or location
- new workers
- moving to a new building or work area
- introducing new chemicals or substances
- new information becomes available about a product
- accident, injury, or near-miss (internal or external)
- reoccurring incidents

6 FORMAL HAZARD ASSESSMENT SCENARIO

This is an example of how an organization performs a formal hazard assessment, with an approximate timeline from start to finish. This is done with tables, spreadsheets, or custom form sets (see Appendix A). Organizations can use their preferred data collection method, as long as it contains the necessary information. Names and scenarios below are fictitious.

Step 1: Positions

The manager of a food transportation company (Jen) is leading the formal hazard assessment, and begins the steps of determining all the different positions within the organization on June 1, 2016.

Determine positions: The manager and a worker contact Human Resources for access to an organizational chart of the company's positions.

POSITIONS AT ORGANIZATION

Receptionist
Mailroom Clerk
Warehouse Attendant
Delivery Driver
Purchaser
Accountant
Manager
Human Resources

Step 2: Tasks

Jen and a Warehouse Attendant (Chris) determine all the tasks of the company's positions by reviewing each job description, conducting interviews with workers, and job shadowing the roles to get a better look at the various tasks. June 2 - 6, 2016.

Determine tasks: Review job descriptions and job shadow each position. Jen and Chris identified the following:

Position	Tasks
Receptionist	Answers phones Greets in-office customers Processes payments Uses computer Photocopies, scans documents Maintains hardcopy customer files Files hardcopy customer files Shreds paper Prepares outgoing mail or faxes for pick-up Changes paper and toner in all fax and printer machines

Mailroom Clerk	Receives incoming mail Receives incoming faxes Sorts mail and faxes Delivers mail and faxes Collects outgoing mail and outgoing faxes Arranges pick up for outgoing mail Faxes outgoing documents
Warehouse Attendant	Offloads incoming shipment Operates forklift Acts as flagger for other warehouse attendants operating machinery Stocks shelves in warehouse Operates counterbalance lift Inputs received goods in order system Reviews orders for delivery Preps delivery orders Operates pallet wrapper Loads delivery truck Updates order system of goods removed from warehouse Informs customer their order has left the warehouse Scans signed delivery acceptance form into order system
Delivery Driver	Secures load for delivery Drives load to customer's warehouse Unfastens load for removal Supervises offloading of goods Has customer sign delivery acceptance form Returns delivery acceptance form to Warehouse Attendant Fuels delivery vehicle
Purchaser	Reviews supplies in order system Orders office supplies Orders warehouse supplies Orders delivery supplies Greets in-office customers
Accountant	Greets in-office customers Uses computer Keeps handwritten notes for hardcopy customer file Prepares outgoing mail or faxes for pick-up
Manager	Answers phone Uses computer Processes payroll Reviews and act on complaints Submits payment for rent and bills Acts as back up Receptionist or Mailroom Clerk as needed Prepares outgoing mail or faxes for pick-up

Human Resources	Processes payroll Answers phone Uses computer Interviews potential workers Hires new workers Posts job availability Terminates worker contracts Submits benefits paperwork Keeps handwritten notes for hardcopy worker file Prepares outgoing mail or faxes for pick-up

Step 3: Hazards

Jen and Chris consider the hazards of each task by observing and interviewing the worker from June 7 – 14, 2016.

Determine Hazards: Identify the hazards of each task within each position. For simplicity, this example contains only one position.

Position	Tasks	Hazards
Mailroom Clerk	Receives incoming mail	1.) External mail delivery workers lift mail and place it into a holding bin. The Mailroom Clerk signs a form confirming receipt of the document or package.
	Receives incoming faxes	2.) Fax documents arrive in the fax machine secured to the desk at waist height. The Mailroom Clerk removes documents from the fax machine and adds them to the mail pile on the counter next to the holding bin. No notable hazards.
	Sorts mail and faxes	3.) The Mailroom Clerk reaches into the bottom of the four foot deep bin to retrieve packages that rest on the bottom. This is an awkward position for the Mailroom Clerk, as the risk of injury increases if the package is heavy. The worker completes this task upwards of 20 times a day; packages usually weigh between 40-60lbs. Potential for back, shoulder or neck injury. 4.) Lifting large packages onto the bottom shelf, to properly distribute the weight of the mail cart, requires awkward postures. This task previously injured a former Mailroom Clerk. Potential for back, shoulder or neck injury when the Mailroom Clerk lowers 40-60lb packages onto the bottom level of the mail trolley. 5.) Place fax documents into confidential envelopes for delivery. No notable hazards.

Mailroom Clerk Continued	Delivers mail and faxes	6.) Mailroom Clerk pushes the loaded trolley, with no assistance across the two floors of the office. This task previously injured a Mailroom Clerk. Potential exertion injury. 7.) Mailroom Clerk offloads the trolley, lifts a heavy item out of an awkward position on the bottom level of the trolley, and places it on the desk of the recipient. Potential for back, shoulder or neck injury. 8.) Mailroom Clerk places confidential folder containing incoming faxes on recipient's desk. No notable hazards.
	Collects outgoing mail and outgoing faxes	9.) Mailroom Clerk lowers 40-60lb packages onto the bottom level of the mail trolley. Performing this task requires awkward positioning to properly distribute the cart weight. Potential for back, shoulder, or neck injury. 10.) Mailroom Clerk pushes the loaded trolley, with no assistance, across the two floors of the office. Potential strain injury. 11.) Mailroom Clerk picks up confidential folder containing outgoing faxes and places on top of trolley. No notable hazards.
	Arranges pick up for outgoing mail	12.) Mailroom Clerk offloads the trolley, lifting heavy items out of an awkward location on the bottom level of the trolley, and places in the bin for pick up. Potential for back, shoulder, or neck injury. 13.) Mailroom Clerk reaches into the bottom of the four foot deep bin to retrieve packages that rest on the bottom. This is an awkward position for the Mailroom Clerk, as the risk of injury increases if the package is heavy. The worker can complete this task upwards of 20 times a day; packages usually weigh between 40-60lbs. Potential for back, shoulder or neck injury. 14.) Packages arrive with labels complete for delivery and all weighing of packages is done offsite by an external shipping company. No notable hazards. 15.) Mailroom Clerk calls appropriate pick-up company to retrieve the outgoing mail. No notable hazards.
	Faxes outgoing fax documents	16.) Mailroom Clerk retrieves confidential folders from top shelf of mail trolley and feeds documents into physically secured, waist-height fax machine one at a time. Worker waits for the confirmation letter to print. Both pages go into a bin for shredding. Reception staff performs shredding duties. No notable hazards.

Step 4: Risks

Jen and Chris determine the risk level of each hazard on June 15, 2016. The risk matrix referred to below is Section 5.4.

Determine risks: Identify the risk level and rank the hazards.

Position	Tasks	Hazards	Risks
Mailroom Clerk	Receives incoming mail	1.) Signs for incoming mail. No notable hazards.	1.) No notable risks.
	Receives incoming faxes	2.) Collects incoming faxes. No notable hazards.	2.) No notable risks.
	Sorts mail and faxes	3.) The task of retrieving packages from the bin is similar to another task, lowering packages into the bin (Hazard #13), and are joined together to determine priority. Potential for back, shoulder, or neck injury.	3.) **Risk:** May happen (2) Minor (2) 2 x 2 = 4 **Priority:** Risk (4) Frequently (3) 4 x 3 = **12**
		4.) The task for loading the trolley with packages is similar to the delivery of packages (Hazard #7) and is repeated when packages are being picked up (Hazard #9) and again when the trolley is unloaded in the mail room (Hazard #12). To determine priority, these tasks are joined. Potential for back, shoulder or neck injury.	4.) **Risk:** Likely to happen (3) Minor (2) 3 x 2 = 6 **Priority:** Risk (6) Frequently (4) 6 x 4 = **24**
		5.) Puts faxes in envelopes. No notable hazards.	5.) No notable risks.
	Deliver mail and faxes	6.) The task of pushing the loaded trolley is repeated during the outgoing mail pickup (Hazard #10). To determine priority, these tasks are joined. Potential strain injury in back, legs, or upper body.	6.) **Risk:** Likely to happen (3) Minor (2) 3 x 2 = 6 **Priority:** Risk (6) Frequently (3) 6 x 3 = **18**

Mailroom Clerk Continued	Deliver mail and faxes Continued	7.) Unloads the trolley. Potential for back, shoulder, or neck injury.	7.) Combined with Hazard #4, #9, and #12, for an overall risk priority of **24.**
		8.) Places envelopes holding faxes on desk. No notable hazards.	8.) No notable risks.
	Collect outgoing mail and outgoing faxes	9.) Loads trolley. Potential for back, shoulder, or neck injury.	9.) Combined with Hazard #4, #7, and #12, for an overall risk priority of **24.**
		10.) Pushes loaded trolley. Potential for strain injury of back, legs, or upper body.	10.) Combined with Hazard #6 for an overall risk priority of **18.**
		11.) Retrieves envelope from desk. No notable hazards.	11.) No notable risks.
	Arrange pick up for outgoing mail	12.) Unloads the trolley. Potential for back, shoulder, or neck injury.	12.) Combined with Hazard #4, #7, and #9, for an overall risk priority of **24**.
		13.) Loads bin. Potential for back, shoulder, or neck injury.	13.) Combined with Hazard #3 for an overall risk priority of **12**.
		14.) Preps packages for pick-up. No notable hazards.	14.) No notable risks.
		15.) Phones for pick-up. No notable hazards.	15.) No notable risks.
	Fax outgoing documents	16.) Faxes outgoing faxes. No notable hazards.	16.) No notable risks.

Jen and Chris list the hazards by priority to prepare for the next step, controlling the hazards.

Priority list for controlling hazards, from highest priority to lowest priority:

1.) Loading/unloading trolley
2.) Pushing the trolley
3.) Loading/unloading mail bin

Step 5: Control

Jen and Chris determine ways to eliminate the identified hazards on June 16, 2016. If they cannot eliminate the hazard, they find a way to control it.

Control hazards: Control the hazards, based on priority.

Position	Hazardous Task	Priority Rating	Recommended Control
Mailroom Clerk	Loading/ unloading trolley	1.) 24, the highest rating for the tasks in this position. This task injured a previous Mailroom Clerk.	**Substitution:** Purchase a new trolley, with an open storage area to minimize awkward postures when loading/unloading the packages. **Administration:** Train the Mailroom Clerk on proper lifting technique.
	Pushing trolley	2.) 18, the second highest rating for tasks in this position.	**Substitution:** As noted above, purchase new trolley. The old one has small wheels and is difficult to maneuver. **Administration:** Train the Mailroom Clerk on proper pushing technique.
	Loading/ unloading mail bin	3.) 12, the lowest rating for tasks in this position.	**Substitution:** Purchase a mail bin with an open side to minimize awkward postures when loading/unloading the packages. **Administration:** Train the Mailroom Clerk on proper lifting technique.

Step 6: Implement

Jen and Chris implement the controls listed above on June 17, 2016.

Implement Controls: Communicate the controls, and how the Mailroom Clerk is affected. Discuss equipment and training with workers in the position.

Position	Hazardous Task	Recommended Control	Implementing Control
Mailroom Clerk	Loading/ unloading trolley	**Substitution**	**Substitution:** Purchase new trolley. Example photo: 
		Administration	**Administration:** Manager to train the Mailroom Clerk on proper way to load and unload the new trolley. Prior to the new trolley arriving, the manager will do a safe lifting training session to prevent an injury using the current equipment.
	Pushing trolley	**Substitution**	**Substitution:** As above, purchase trolley. Example photo: 

Mailroom Clerk Continued	Pushing Trolley Continued	**Administration**	**Administration:** Manager to train the Mailroom Clerk on proper way of pushing the new trolley to minimize risk of injury. Prior to the new trolley arriving, the Manager will do a safe pushing training session to prevent an injury using the current equipment.
	Loading/ unloading mail bin	**Substitution**	**Substitution:** Purchase new mail bin. Example photo: 
		Administration	**Administration:** Manager to train the Mailroom Clerk on proper way to load and unload the new mail bin. Prior to the new mail bin arriving, the Manager will do a safe lifting training session to prevent an injury using the current equipment.

Step 7: Check-up

Jen and Chris determine ways to ensure the regular follow-up of the new safety measures on June 27, 2016 and December 27, 2016.

Check-up: Assign responsibility for continued safety and following of implemented controls.

Position	Hazardous Task	Implemented Control	Responsibility and Follow-up
Mailroom Clerk	Loading/ unloading trolley	**Substitution:** As above, purchased new trolley, from workplace depot company. **Administration :** Manager trained Mailroom Clerk on proper lifting technique.	Mailroom Clerk is responsible for reporting any issues with new trolley to the manager as soon as possible. Manager to train on proper lifting technique for any new mailroom workers. Manager will follow-up (27 December 2016) with the Mailroom Clerk to see how the new trolley is functioning and add the trolley to the contractor maintenance list.
	Pushing trolley	**Substitution:** Purchased new trolley from workplace depot company. **Administration:** Manager trained Mailroom Clerk on proper pushing technique.	Mailroom Clerk is responsible for reporting any issues with new trolley to the Manager as soon as possible. Manager to train on proper pushing technique for any new mailroom workers. Manager will follow-up (27 December 2016) with the Mailroom Clerk to see how the new trolley is functioning and add the trolley to the contractor maintenance list.
	Loading/ unloading mail bin	**Substitution:** Purchased new mail bin from workplace depot company. **Administration:** Manager trained Mailroom Clerk on proper lifting technique.	Mailroom Clerk responsible for reporting any issues with the new mail bin to the manager as soon as possible. Manager to train on proper lifting technique for any new mailroom workers. Manager will follow-up (27 December 2016) with the Mailroom Clerk to see how the new mail bin is functioning and add the trolley to the contractor maintenance list.

Step 8: Living Documents

Jen and Chris ensure the documents are updated regularly and reviewed at least once per year. 24 August 2016 and 31 August 2016.

Living Documents: Review and update the hazard assessment as needed. New controls sometimes unexpectedly result in new hazards. Address these new hazards efficiently and update the hazard assessment to reflect the new information.

Position	Hazardous Task	Implemented Control	Update
Mailroom Clerk	Loading/ unloading mail bin	**Substitution:** Purchased new mail bin, from workplace depot company. **Administration:** Manager trained Mailroom Clerk on proper lifting technique.	Mailroom Clerk notified Manager on 24 August 2016, that during loading the mail bin occasionally rolls, as the wheels do not lock. New wheels with locking function purchased and installed by externally-contracted maintenance provider on 31 August, 2016. Mailroom Clerk reported this has solved the problem and the mail bin no longer rolls when loaded.

7 SITE-SPECIFIC HAZARD ASSESSMENTS

The main difference between the two types of assessments is that while the formal assessment covers an organization and all the tasks completed within it, the site-specific hazard assessment identifies hazards in that moment. They are also referred to as field-level hazard assessments (FLHA), even though they are used in non-field workplaces, and are completed before work starts on a specific worksite. This assessment type is done in a particular moment in time, a snap shot of the environment and the tasks taking place.

Site-specific hazard assessments ensure workers remain safe all the time. The introduction of new hazards, unexpected hazards, or the need for additional control measures are brought to the forefront with site-specific hazard assessments. As this process occurs before any work starts. Share the results at pre-shift meetings, tailgates, or safety talks. Immediately address any findings of hazards or concerns, selected and implement the appropriate control(s), and educate workers in how to address the hazard before work begins.

There are many ways of assessing hazards. Organizations develop risk or hazard rating tools and systems that fit their specific operations and the activities of their workers. Examples include: Field Level Risk Assessment (FLRA), Job Hazard Assessment (JHA), Pre-job Safety Instruction (PSI), and Safe Task Observation Pre-assessment (STOP).

Site-specific assessments offer the benefit of including new hazards into the formal assessment. This is a good source of information which can support the maintenance of the larger formal assessment through updates.

7.1 WHEN TO COMPLETE A SITE-SPECIFIC HAZARD ASSESSMENT

Just like the formal hazard assessments, a site-specific hazard assessment is also a living document. As things change on the worksite, so will the hazard assessment. To keep workers safe assessments must be current:

- At the beginning of the shift, before work starts on a new site
- Before a new project begins
- Before equipment or materials arrive at the site for the first time
- If tasks or activities change
- Before starting seasonal work, or work that isn't normally done at the site
- Upon identification of new hazards
- If there are changes in the site environment, such as weather
- If new tasks or contractors arrive at the site

It is important to have a current site-specific hazard assessment, to ensure complacency does not set in. Complacency is no friend of health and safety, and workers are the greatest resource an organization has. The importance of workers assessing their worksite and area for hazards in an attentive manner cannot be overstated.

7.2 THE PROCESS

Both supervisors and workers will complete site-specific hazard assessments. The supervisor will complete one, when needed, at the beginning of the shift, and workers will perform them prior to starting a new task. Best practice is to always include workers; they have valuable insight into the day-to-day workings of the site. It is important everyone on the team understands the goal of the assessment and the steps to get quality information. There are multiple steps to completing a site-specific hazard assessment, but in general it follows many of the same steps as the formal hazard assessment.

1.) **Tasks**
2.) **Hazards and Risks**
3.) **Implement Controls and Communicate**
4.) **Living Documents**

7.2.1 Tasks

Determine what tasks will take place that day on site. Plan ahead to see what type of resources, equipment, and materials will be on site. What type of work, who will be completing it, as well as whether or not it will interfere with other projects on the go. A solid pre-job plan would cover the majority of these items.

7.2.2 Hazards and Risks

A hazard could come from a variety of areas, not limited to just a situation, material/equipment, workers/visitors, environment, or condition. Conduct a hazard assessment and think about how hazards will develop based on what work will be done that day. Assess the risk associated with that hazard. There is no need to prioritize hazards based on severity, likelihood, or frequency as was done with the formal hazard assessment. This is because supervisors and managers must ensure the control of all identified hazards prior to work beginning. Also include emergency situations in the hazard assessments, cover the likely scenarios and the possible hazards which may surface given a specific condition (ex. Fire, egress).

Ways of identifying hazards:

- Inspect: Walk around the workplace and look for what could cause a worker harm (hazard hunt)
- Teamwork: Before a shift or a task begins, identify the potential hazards
- Collect information: Ask workers and Joint OHS Representatives what experiences they have with the task
- Review information: Look back at accident and ill-health records (history)
- Review: Note problem areas on a work site floor plan

What to consider when identifying hazards:

- Types of hazards
- Work site components: people, site/environment, materials, equipment
- Legislation: Acts and Regulations
- CSA Standards
- Guidelines or Codes of Practice
- Manufacturers' and suppliers' recommendations
- Workplace policies and procedures
- Best practices
- Inspection and maintenance reports

Remember to think about health hazards, such as exposure to high levels of noise or harmful substances, as well as safety hazards. Some workers have particular requirements, such as young workers, new workers, expectant mothers, or people with disabilities or individuals requiring accommodation.

Consider using an altered legend to allow workers and supervisors reference and quickly assess hazards. For example:

1.) **Severe: STOP AND DISCUSS:** Do not continue the task until contacting the supervisor/worker to discuss how to control the hazard (ex. temporary renovations have bumped the welding station to an area where there is immovable combustible material).
2.) **High: STOP AND ASSESS:** Consider if the hazard can be eliminated (ex. tag-out the equipment with the frayed cord, use equipment with an intact cord for the job), or if the task can be done in a different way. Is it possible to postpone or not complete the hazardous part of the task?
3.) **Moderate: PAUSE WORK:** Determine if there be is a way to minimize the risk (ex. unpack some of the load before carrying it). Put in place alternative controls and reassess to see if the hazards remain.
4.) **Low: CONTINUE CAUTIOUSLY:** Make sure current controls are working (ex. no one has removed the hand grinder guard). Be aware that new hazards can develop as work progresses. Reassess regularly.

7.2.3 Implement Controls and Communicate:

The best option is to determine if it is possible to eliminate the hazard. If it is not possible, determine how else to control it to ensure the safety of workers. When elimination is not an option, determine if substitution, engineering, administration, or PPE can control the source of the hazard. Inform all workers of the hazard, and what is being done to control it. Provide details as well as expectations as to what their role is in maintaining a safe worksite. This can happen at the pre-shift safety meeting by sharing the hazard assessment, findings, and controls. Provide training or conduct a review of safe work procedures immediately should the control require it.

7.2.4 Living Documents

Reassess and complete the site-specific hazard assessment every time there is a change to the site or to the nature of the work. The date on the document will help keep track of changes to the assessment as time goes on, and provide valuable data to the company-wide OHS program and formal hazard assessment.

8 SITE-SPECIFIC HAZARD ASSESSMENT SCENARIO

This is an example of how a Supervisor begins a site-specific hazard assessment. Just like with the formal hazard assessment, there are many ways to document the information.

Step 1: Identify Tasks and Potential Hazards

The Supervisor (Thomas) oversees the loading at a new warehouse. He inspects the work site, talks to his team, reviews the company's formal hazard assessment, and looks for different types of hazards. He considers the four main workplace components of **people**, the **work environment**, the **materials,** and the **equipment**.

Thomas identifies a hazard that involves one of the workers and a piece of equipment. There is a possibility of the worker losing control of the forks on the front-end loader while adjusting them for material handling. This could lead to a potentially serious foot injury. Thomas looks at the regulations on footwear and notes the obligation it puts on the employer to make sure the worker is wearing the right footwear when there is a risk of a crushing injury. Names and scenarios below are fictitious.

ANALYSIS – Thomas Ferguson (Warehouse Supervisor)

April 6, 2016

Controls: Engineering, Administration, and PPE.

Work site: New warehouse.

Task: Adjusting the forks of the front end loader for material handling.

Hazard: Losing control of the forks on the front end loader when adjusting. Fork dropping on foot.

Northwest Territories *Occupational Health and Safety Regulations*:

PART 7

PERSONAL PROTECTIVE EQUIPMENT

Footwear

100. (1) An employer shall require that

(a) a worker uses footwear suitable to minimize any risks associated with the work site and the worker's work; and

(b) a worker who could be at risk from a heavy or falling object or who could tread on a sharp object uses approved protective footwear.

Step 2: Implement Controls and Communicate

After identifying the hazard, Thomas discusses hazard controls. With the worker (Lawrence), Thomas goes down the list of five controls to see how to eliminate or reduce the risks to the Lawrence. They can't ***eliminate*** the risk, or ***substitute*** it with something else. ***Engineering*** out the hazard will occur with the purchase of a new forklift with hydraulic moveable arms. The new purchase is in the budget for 2018; until it arrives they need to control the hazard in alternative ways. They look at ***administrative*** controls and decide Lawrence should not adjust the forks alone. It really needs two workers. Next they decide on *training* and *maintenance*. While proceeding with the maintenance schedule, Thomas makes sure Lawrence receives training by showing him how to adjust the forks safely. They then look at the forks to make sure the sliding rod is lubricated, the bushings are not worn out and the safety stop if located at the end of each fork.

Lastly they look at the ***personal protective equipment*** *(PPE)* control and decide on the steel toe with metatarsal foot guard which meets *OHS Regulations.*

Thomas now develops an implementation plan. He documents the process, writing down when he did the assessment, the three types of control methods he is implementing, the four actions to be taken, when and by whom. He then considers the steps of an emergency response if such an accident should happen. He communicates the hazards and controls with all the workers prior to the work beginning. Once complete, the new analysis is sent to the company headquarters, specifically the individual in charge of the company-wide OHS program to update the formal hazard assessment.

ANALYSIS – Thomas Ferguson (Warehouse Supervisor) and Lawrence Cleary (Product Worker)

April 6, 2016

Controls: Administration and PPE

Elimination: Not possible
Substitution: Not possible
Engineering: New forklift with hydraulic moveable arms budgeted for 2018
Administration: *Process* - Two people instead of one to manipulate the forks
Training - Worker has training to adjust forks properly
Maintenance – Ensure lubrication of sliding rod
– Ensure bushings are not worn out
– Ensure safety stop is in place
Personal Protective Equipment (PPE):
Appropriate footwear - steel toe with metatarsal foot guard
Emergency Plan: Provide first aid equipment, assign responders, train and familiarize staff with first aid protocols
Implementation:
Training – On-the-job training by supervisor
Maintenance – Worker to check once a day before operating loader
PPE - Worker responsibility to wear - Supervisor to check meets standards
Completion: Before doing task

Step 3: Living Document

Today a new worker (Sarah) starts working in the warehouse loading area. One of the workers (Louis), who used to help adjust the forks on the front end loader, reports the potential hazard of Sarah adjusting the forks alone to his supervisor. Louis reminded the new supervisor (Lee) of the level 3 hazard associated with the task.

The previous supervisor, Thomas, kept a record of the controls implemented in that area and Lee looks at the records. Before Sarah starts work he talks to her, explaining her responsibilities and provides the required task-specific training. Lee makes sure the machine is properly maintained and that Sarah wears the appropriate footwear.

Lee files the updated analysis for future reference.

ANALYSIS – Lee Reyes (Warehouse Supervisor)
Louis Millson (Product Worker)

February 22, 2017

Event that indicates need for review of controls: New worker

Work site: Warehouse

Task: Adjusting the forks of the front end loader for material handling

Hazard: Level 3 hazard: STOP AND ASSESS: Reported by Louis. Concern over the new worker losing control of the forks on the front end loader and dropping the fork on their foot.

Potential Harm: Serious injury to the foot (e.g. fracture)

Controls in place: Administration and PPE

Administration:
Process - Two people instead of one to manipulate the forks
Training - Worker has to be shown how to work safely
Maintenance - Ensure lubrication of sliding rod
- Ensure bushings are not worn out

Personal Protective Equipment (PPE):
Appropriate footwear - steel toe or metatarsal foot guard

Implementation:
Training – On-the-job training by supervisor
Maintenance – Worker to check once a day before operating Loader
PPE - Worker responsibility to wear
- Supervisor to check meets standards

Completion: Before new worker performs task

9 ON-GOING HAZARD REPORTING

Unlike the formal and site-specific hazard assessments, hazard reporting occurs once the worker has begun their shift. It is also reactive instead of proactive. Hazard reporting should follow the same reporting system as site-specific assessments (severity from 4 to 1, or whichever rating scale used by the organization). Occasionally, hazards previously known and under control, or unexpected hazards may present themselves. For example, low visibility due to unexpected foggy conditions obstructing the crane operator's view, or water spilled in a high walking traffic area. A hazard report updates workers and supervisors on new hazards that have appeared since their safety meeting that day. While initially they can be verbal, a written document is necessary for record keeping.

A worker can choose to control the spill hazard themselves by placing out pylons, letting those nearby know there is water on the floor, and cleaning it up. Next they give a written report outlining the hazard and the worker's actions to control the hazard to the supervisor. For hazards outside of the worker's ability to control, they have the option to verbally let their supervisor know of the hazard so they can control it. With unexpected fog on a worksite, a radio call to the supervisor will let them know of the changing conditions in the specific location. While the supervisor cannot do anything about the fog's presence, they can order certain types of work to stop, and notify all the other affected positions until things clear up.

10 HAZARD ASSESSMENT RESOURCES

Canadian Centre for Occupational Health and Safety: *Hazard and Risk*. Accessed 12 December 2016.
http://www.ccohs.ca/oshanswers/hsprograms/hazard_risk.html

Canadian Centre for Occupational Health and Safety: *Hazard Reporting by Employee.* Accessed 12 December 2016.
http://www.ccohs.ca/oshanswers/hsprograms/report.html

Construction Owners Association of Alberta. Accessed 12 December 2016.
http://www.coaa.ab.ca/

WorkSafe Saskatchewan: *Identify Workplace Hazards.* Accessed 12 December 2016.
http://www.worksafesask.ca/prevention/hazard-control/identify-workplace-hazards/

WorkSafe Alberta: *Hazard Assessment and Control.* Accessed 12 December 2016.
https://work.alberta.ca/elearning/hazard/Hazard.htm

Ontario Ministry of Labour: *Workplace Hazards.*12 December 2016.
http://www.labour.gov.on.ca/english/hs/faqs/hazards.php

Manufacturers' Health & Safety Association (MHSA). *Hazard Assessment & Analysis Course*. 12 December 2016.
http://www.mhsa.ab.ca/courses/hazard-assessment-analysis

WorkSafe Victoria. *Controlling OHS hazards and risks - A handbook for workplaces.* Accessed 12 December 2016.
http://www.worksafe.vic.gov.au/safety-and-prevention/health-and-safety-topics/controlling-ohs-hazards-and-risks

Machinery Safety 101: *Understanding Risk Assessment.* 12 December 2016.
http://machinerysafety101.com/2011/01/31/understanding-risk-assessment

Guarding Minds @ Work: *Psychosocial Risk Assessment in the Workplace*. Accessed 12 December 2016.
http://www.psmt.ca/docs/Psychosocial%20Risk%20Assessment%20as%20Corporate%20Governance%20Issue.pdf

WorkSafeBC: *Lift/Lower Calculator.* Accessed 12 December 2016.
http://www2.worksafebc.com/calculator/llc/default.htm

WorkSafeBC: *Push/Pull/Carry Calculator.* Accessed 12 December 2016.
http://www2.worksafebc.com/ppcc/default.htm

APPENDIX A - FORMS AND CHECKLISTS

This section provides examples of forms and checklists for customization and use.

Different work sites have different OHS needs and will use different assessment and reporting methods. More examples of forms are available on the websites cited in the section called Hazard Assessment Resources.

Hazard Assessment – Example Form

Complete this form before the start of each task or with any change in conditions.

Job:_____ Date:_____

Review the following with the work crew. List tasks and hazards, and identify controls.

***** *High Risk tasks need a Safe Operating Procedure.*

Personal Hazards

- clear instruction provided
- able to perform the task
- trained to use equipment/tools
- distractions in the work area
- working alone
- aware of weather conditions
- noise levels
- have all the correct PPE

Activity Hazards

- welding/grinding
- burn/heat sources
- compressed gasses
- energized equipment
- electrical cords condition
- equipment/tools inspected
- lockout procedure in place
- airborne particles

Environmental Hazards

- spill potential
- climatic conditions
- MSDS/SDS reviewed
- ventilation required
- heat stress/cold exposure
- other workers in the area
- lighting levels
- housekeeping

Ergonomic Hazards

- working in a tight area
- parts of body in the line of fire
- working overhead
- pinch points identified
- being trapped while working
- repetitive movements

Working at Height Hazards

- barricades, flagging & signs
- hole coverings in place
- protection from falling items
- powered platforms
- fall arrest
- ladders

Access/Egress Hazards

- scaffold inspected and tagged
- slip/trip potential identified
- required permits in place
- excavations
- confined space
- other:_____

Identify and prioritize hazards, then identify plans to eliminate or control the hazards.

TASK	HAZARD	CONTROL

All hazards must have action plans to eliminate or control them. Plans must be in place before starting a task.

Name:_____ Name: _____ Name: _____

Supervisor Signature: _____ Reviewed by: _____

FORMAL HAZARD ASSESSMENT – EXAMPLE								
Discipline: **Position:** **Page ___ of ___**		**Assessment Team Names:** **Controls Communicated**: ☐ Workers ☐ Supervisors ☐ Other _____ **Copy of Communication Attached:** ☐ Meeting Record ☐ Other _____ **Other Notes**:					**Date:** **Supervisor Signature**: **Check-up/Follow-up Date:**	
Task	**Hazard**	**Severity**	**Likelihood**	**Risk Level** Severity X Likelihood =	**Frequency**	**Priority Rating** Risk X Frequency =	**Controls** Elimination, Substitution, Engineering, Administration, and lastly PPE	**Date Implemented**
		☐ Minimal (1) ☐ Minor (2) ☐ Serious (3)	☐ Unlikely to happen (1) ☐ May happen (2) ☐ Likely to happen (3)		☐ Rarely (1) ☐ Occasionally (2) ☐ Frequently (3) ☐ Constantly (4)			
		☐ Minimal (1) ☐ Minor (2) ☐ Serious (3)	☐ Unlikely to happen (1) ☐ May happen (2) ☐ Likely to happen (3)		☐ Rarely (1) ☐ Occasionally (2) ☐ Frequently (3) ☐ Constantly (4)			

Power & Hand Tool Focus Inspection – Site-specific Hazard Assessment for New Tool Example Checklist

Date:_____ Foreman:_____ General Foreman:_____ Superintendent:_____

Craft: **Inspector:** **Area:**

Items for Inspection	*** C**	**** NC**	**ID**	**Comments**	Supervisor / Trade / Position
General – Power Tools					
• UL or CSA approved					
• Proper attachments for tool					
• Side handle used					
• Disconnect when adjusted					
• Foot pedal installed					
• Trigger locks removed					
• Proper guards installed					
General – Hand Tools					
• Tie backs (drop hazard)					
• Carried in pouch					
• Handle in good repair					
• Handles on file					
• Ladders (C.C.)					
• No snipes					
Knives/Cutting tools					
• No razor knives					
• Striking tool dressed					
Sub-Totals				**Imminent Danger = -20% off total score** % Compliance = (In Compliance X 100) / Total	
Total Values (Combined)				**% Compliance This Week**:_____	

***C** = Compliant ****NC** = Non-compliant

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Maintenance - Site-specific Hazard Assessment for Equipment in New Environment Example Checklist

Date:_____ Foreman:_____ GF:_____ Superintendent:_____

Inspector: **Craft:** **Area:**

Items for Inspection	* **C**	** **NC**	**Comments**	Supervisor / Trade / Position
Colour Coded Items				
• Fall arrest equipment				
• Slings				
• Hooks				
• Shackles				
• Come-a-longs				
• Turfers				
• Chainfalls				
• Welding leads				
• Electrical cords				
• Electrical tools				
• Ground fault interrupters				
• Portable ladders				
Colour Code Information				
• Red tool tags available				
• Current colour code posted at tool crib				
• Workers know current colour code				
Sub-totals			% Compliance = (Total Observations in Compliance X 100) / Total Observations Observed	
Total Values (Combined)			**% Compliance This Week**:_____	

***C** = Compliant ****NC** = Non-compliant

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SITE SPECIFIC HAZARD ASSESSMENT – EXAMPLE REPORT FORM **Date:**
Name of Worker: Signature:
Name of Supervisor:
Location: **(Describe the work site, building, or area)**
Description of Task and Hazard:
☐ **Level 4 Severe: STOP AND DISCUSS:** Do not continue the task until contacting the supervisor to discuss how to control the hazard. ☐ **Level 3 High: STOP AND ASSESS:** Consider if it is possible to eliminate the hazard , or if the task can be done in a different way. Is it possible to postpone or not complete the hazardous part of the task? ☐ **Level 2 Moderate: PAUSE WORK:** Is there anything that could be done to minimize the risk? Put in place an alternative control, and reassess to see if the hazards remain. ☐ **Level 1 Low: CONTINUE CAUTIOUSLY:** Make sure current controls are working. Be aware that new hazards can develop as work progresses. Reassess as necessary.
Hazard Control Action Plan: **(Describe the corrective action items to implement: how, by whom, and when)**
Communicated to: ☐ Workers ☐ OHS Committee ☐ Health and Safety Representative ☐ Other: _____
Follow-up Date: Name of Supervisor Responsible for Follow-up:
Supervisor Signature: Date:

Hazard Assessment

Workers' Safety & Compensation Commission
Northwest Territories and Nunavut

WSCC Emergency Reporting
24-hour Incident Reporting Line

1 800 661-0792

If you would like this Code of Practice in another language, please contact us.