

BLD Homes Health and Safety - Ontario Ministry of Labour, Training and Skills Development

**Construction projects should be safe workplaces.
Workers, supervisors and employers are all responsible for safety.
Construction site safety is everyone's responsibility.**

PUBLICATION INFORMATION

Site Safety:

Construction site health and safety during COVID-19

Find resources, best practices and information to help you create a COVID-19 workplace safety plan to keep your workers safe and healthy, and your construction projects going during COVID-19.

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Overview

Employers and workers in Ontario have certain duties and rights under the Occupational Health and Safety Act (OHSA) and its regulations. This includes taking steps to prevent the spread of COVID-19 in the workplace.

Learn more about:

- workers' rights**
- employers' responsibilities**

Constructors and employers have obligations to protect workers from hazards in the workplace, including COVID-19. To help prevent outbreaks, we encourage every employer to develop a COVID-19 workplace safety plan.

The guide to developing a COVID-19 workplace safety plan can help you to:

- understand the risks related to COVID-19/covid 19 transmission in your workplace
- develop control measures to prevent exposures
- identify concrete actions you will take to make your workplace safer

Employers also need to be aware of and follow the restrictions and requirements that apply to their workplace under the Reopening Ontario (A Flexible Response to COVID-19/covid 19) Act (described in the Roadmap to Reopen) such as preparing a written safety plan and making it available upon request.

You should also regularly check for requirements applicable to your region, such as:

- municipal by laws
- orders from your local public health unit

This guidance note does not replace the Occupational Health and Safety Act or the Employment Standards Act and their regulations and should not be used as or considered legal advice. Health and safety inspectors and employment standards officers apply the law based on the facts in the workplace.

Best practices

Use this guidance, and other general and sector-specific resources, to develop and maintain a safety plan specific to your worksite.

Understand the risk

The key risk factors for COVID-19/covid 19 transmission include:

- close proximity: working close to others
- longer exposure: spending more time with potentially infected people
- crowded places: having more people in a space
- closed spaces: indoor spaces with less fresh air (working indoors is riskier than working outdoors)
- forceful exhalation: activities that cause people to breathe more deeply, such as physically demanding work, speaking loudly and singing

Each additional risk factor in the workplace increases the risk of transmission. Not having any of these factors does not mean there is no risk of transmission.

Implement safety measures

Once you understand the risks in your workplace, you must implement measures to control potential exposure to COVID-19.

With an infectious disease like COVID-19, you will need to implement controls that can help to break the chain of transmission of the virus.

These controls help to protect workers in different ways. For example:

- **screening helps to keep people who may be infectious out of the workplace**
- **good ventilation and wearing masks can help reduce the amount of virus in an indoor space**
- **maintaining physical distance reduces the chance of being exposed to respiratory droplets of all sizes**
- **personal protective equipment (PPE) can help protect the wearer from exposure to the virus and may be required when other control measures cannot be consistently maintained**

In situations where one or more controls cannot be consistently maintained it is especially important that other controls are in place.

It is possible for COVID-19 to be spread by people who do not have any symptoms. Act as if everyone is infected when setting up controls.

Provide information and training

Ensure that everyone follows health and safety policies. Give workers the information and training they need. Trades, subtrades and subcontractors should have procedures in place to follow your health and safety policies. Ensure all workers know how to keep themselves safe from exposure to COVID-19.

Share information

Provide clear information and instruction to workers and others. Make sure they know what they need to do to protect themselves and others. Provide clear guidance on policies, procedures and other controls including:

- **the sanitization of the work areas**
- **how workers and contractors report illnesses**

- how to ensure physical distancing
- when PPE or source control masking is required
- how work will be scheduled
- screening measures

Some things to consider:

- set up or use your current internal communication systems to provide frequent reminders and updates
- post information for workers and other people (such as at the access points to each project, by the elevator or hoist, close to the lunchroom, office or other common areas).
- share information in all languages spoken by your workers if possible, and provide information in ways that are easy to understand, like graphics
- provide information to your workers about how vaccination can help keep them safe
- share information about social, financial and mental health supports and how to stay healthy at home and while traveling between home and work
- train and retrain on procedures

Control the risk of transmission in the workplace

Controlling the transmission of COVID-19 in the workplace involves making changes to the way we do things. Use the hierarchy of controls to help you choose the right control measures for your workplace. Checking to see how your plan is working will help you find the best solutions for your unique situation and adapt to any changes. Every control measure has strengths and weaknesses, so it is important to combine controls. Each additional control adds a level of protection. For controls that rely on individual behaviours, it is critical that people apply them correctly and consistently. Some questions that may be helpful when considering control measures include:

- Can this task be completed while maintaining physical distancing?
- Can workers wear a source control mask while performing this work?
- Can this task be conducted at a later, safer time?
- Is there a different procedure that can be used?

Screen for COVID-19

By keeping symptomatic workers and other people from entering, you can reduce possible transmission at your workplace.

Know the symptoms to look for and plan for how you will screen everyone who enters the worksite, including actively screening workers. Use the COVID-19covid 19 screening tool for workplaces or ensure that your screening process includes all the questions from the tool.

Physical distancing (two metres)

As advised by public health officials, physical distancing is important for controlling the spread of COVID-19covid 19. You may need to reduce the number of people on job sites and in specific areas within the site so everyone can maintain appropriate physical distancing. Constructors and employers should look at how they can adjust their production schedules to limit unnecessary on-site contact and support physical distancing, where possible.

Here are some tips you can use to help ensure physical distancing at your worksite.

Limit the number of people

- **reschedule any unnecessary visits to the workplace by supply chain partners, vendors or others who don't need to be there now**
- **limit the number of workers on-site at the same time by staggering work schedules, start times, breaks, and lunches**
- **control site access, including prohibiting entry to any unauthorized person and posting signs indicating a phone number for suppliers and visitors to call for entry**
- **organize tasks so that only one trade is working in a space at a time (for example, not doing electrical work and plumbing at the same time)**
- **limit the number of people in the project trailer or lunchrooms at one time**
- **hold meetings outside or in a large space and if necessary, hold multiple meetings to limit size of groups**

Consider movement of people

- **plan worksite mobility and transportation to take into account physical distancing, including for hoist operations**
- **set up one-way staircases and corridors wherever practical to minimize contact between workers**
- **limit the number of people who use elevators and hoists at one time through markings on the floor and direct the occupants to face the walls of the hoist or elevator rather than each other**
- **limit the number of people inside a vehicle and/or increase number of trips to allow for physical distancing; increase use of fresh air ventilation in vehicles**

Communicate expectations to workers

- **encourage physical distancing and make sure everyone knows the capacity limits for the spaces they are using**
- **conduct work area inspections to verify workers are practicing physical distancing**
- **communicate to workers that they should notify the supervisor of any concerns about practices or procedures that may affect physical distancing**
- **use signage to reinforce your policies and control measures**

Masks and personal protective equipment

A mask is a type of face covering. It is a piece of equipment that covers the wearer's nose, mouth and chin. It is fixed to the face with straps, ties or elastic, either behind the head or with ear loops.

For COVID-19 protection, masks can be used as workplace control measures in two ways:

- **source control: workers and visitors wear a mask to protect those around them**
- **PPE: workers wear a mask (along with eye protection) to protect themselves**

Not all masks or other face coverings are suitable for use for either or both purposes in the workplace.

All constructors and employers should consider using source control masking combined with other control measures as much as possible. Wearing a mask as source control is required by law in many Ontario workplaces. You should be aware of the most current local and provincial requirements that are applicable to construction.

To determine when PPE is needed, you will have to assess all the relevant factors in the workplace. This includes the effectiveness of other controls you already use. Even with other controls in place, there are situations where PPE is needed to comply with your duty under the OHSA to take every precaution reasonable in the circumstances for the protection of workers.

When workers need to work indoors or outdoors within two metres of an unmasked or improperly masked person without an adequate shielding barrier (for example, plexiglass, partition, wall), they will need to wear PPE for COVID-19.

Where PPE for COVID-19 is needed in non-health care settings:

- it will likely consist of a surgical or procedure mask (or equal or greater protection) and eye protection (such as face shield or goggles)
- gloves will not usually be needed as they do not provide any more protection than hand washing or using hand sanitizer

Construction workers who wear PPE for protection against workplace hazards besides COVID-19 must continue to use that PPE as required.

This could include:

- respirators (such as for wood dust or silica)
- gloves (such as for handling chemicals or protecting hands from cuts)

Learn more about [using masks in the workplace](#) including how to select, care for and use them to protect workers from COVID-19.

Workplace sanitation and hygiene

COVID-19 is spread from person to person through close contact, including at work. While constructors and employers always have an obligation to maintain clean worksites, that obligation is under sharper focus due to COVID-19.

You must:

- provide access to soap and water
- provide hand cleanser to remove grease, grime and oil and an alcohol-based hand sanitizer that is between 60% and 90% alcohol when providing water is not feasible and in addition to hand washing stations
- clean washroom facilities regularly and provide a safe place for waste disposal

Some additional tips for protecting workers through improved workplace sanitation and hygiene, include:

- do more frequent maintenance of the wash up facilities and ensure adequate amounts of soap, water, cleaners and disinfectant are available in the workplace
- sanitize commonly touched surfaces and equipment (such as hoists, site trailers, door handles)
- clean lunch room and other common room surfaces frequently
- avoid sharing of hand tools, powered equipment and other items. If sharing is necessary, sanitize the tools, equipment and other items between uses

Ventilation and air flow

The risk of COVID-19 transmission is higher in more enclosed and crowded spaces. On a construction site this may include trailers, sheds, temporary buildings and any other indoor spaces, finished or unfinished. The steps you can take to reduce the risk will depend on the worksite. You could:

- **keep windows and doors open as much as possible**
- **use portable ventilation fans or HEPA air cleaners**
- **continue ventilation and air exchange after regular work hours where feasible**
- **limit how much time workers are indoors or in enclosed spaces, particularly with other people; alternate indoor and outdoor tasks**
- **use available outdoor space whenever possible, for example, for meetings, breaks and appropriate work tasks**
- **consider scheduling tasks in a different order than usual to provide as much fresh air as possible throughout the project**

Be aware of other hazards that may be associated with some of these actions, such as temperature extremes or potential for falls and put measures in place to control any new risks.

Manage a potential case of, or suspected exposure to, COVID-19 at the workplace

The guide to developing your COVID-19 workplace safety plan can help you plan for what you will do if there is a case of COVID-19 at your workplace or a suspected exposure to COVID-19 (see Question 4 in the guide).

If a worker calls in sick, informs you of symptoms or informs you they had close contact with someone with symptoms, or if anyone shows symptoms in the workplace they should be excluded from the workplace.

Your local public health unit is responsible for identifying close contacts and determining when a workplace outbreak has occurred. You and your workers must follow any direction provided by local public health officials, including self-isolation if required. If you have questions about a case in the workplace or about public health direction, contact your local public health unit.

If a worker tests positive for COVID-19, the local public health unit may ask you to provide information such as where and when the worker was present and information about any other worker who may have been exposed. Consider setting up a system to track workers to be able to provide information to the public health units if needed.

You must let workers know if they may have been exposed in the workplace. You should give all workers information about the date and time of the potential exposure and where it took place. Don't give out any information that might identify the infectious person.

Provide notice

If you are advised that one of your workers has tested positive for COVID-19 due to exposure at the workplace, or that a claim has been filed with the Workplace Safety and Insurance Board (WSIB), you must give notice in writing within four days to:

- **the Ministry of Labour, Training and Skills Development**
- **the workplace's joint health and safety committee or health and safety representative**
- **the worker's trade union (if applicable)**

Additionally, you must report any occupationally acquired illnesses to the WSIB within three days of receiving notification of the illness.

Resources

Resources to prevent COVID-19 in the workplace:

- **guide to developing your COVID-19 workplace safety plan and COVID-19 workplace safety plan checklist**
- **resources for the construction sector from the Infrastructure Health and Safety Association (IHSA)**
- **guidance on using masks in the workplace**
- **guidance on self-isolation and return to work**
- **resources from relevant industry associations and trade unions**

General COVID-19 resources:

- **information on the Ontario Government response to COVID-19**
- **resources from Public Health Ontario**
- **COVID-19 information from the Government of Canada**
- **resources from international organizations, such as the Centers for Diseases Control and Prevention (CDC)**

Information on provincial COVID-19 public health and legal requirements:

- **Ontario COVID-19 public health measures and advice**
- **the Ontario government COVID-19 website**
- **find your local public health unit**

Supporting posters and worker guidance:

- **posters from the Ministry of Labour, Training and Skills Development**

Important contacts

Telehealth Ontario at Toll-free: 1-866-797-0000

Ministry of Labour, Training and Skills Development - to report illness
WSIB - to report illness

Workplace PPE supplier directory – to assist in finding supplies and equipment

Best Practices for Building and Working Safely on Ice Covers in Ontario
[PDF/2.37Mb]

Infrastructure Health & Safety Association

Alert: Beam Clamps (Lever-Action)

- ISSN: 1195-5228
- Issued: June 1995
- Content last reviewed: January 2011

Hazard Summary:

Two workers on a construction project were struck and killed when a structural steel beam being hoisted over them slipped out of a lever-action beam clamp. The investigation revealed that the single clamp being used was too large for the beam and so did not grip the top flange securely. It was also discovered that the clamp used a lever action for gripping. When the tension on the hoist cable was released, the jaws of the clamp could open automatically and release its grip on the flange.

Clamps of this type do not meet the requirements of the Regulations for Construction Projects [O. Reg. 213/91, section 172], which state that "a container, sling or similar device for rigging or hoisting an object, including its fittings and attachments . . . shall be so arranged as to prevent the object or any part of the object from slipping or falling."

Beam clamps that rely on the lever action of the jaws to provide the grip on the beam do not meet the requirements of the Regulations for Construction Projects and therefore should not be used for hoisting structural steel.

Required Action:

- **When a beam clamp is used for hoisting, it must be positively attached to the beam, i.e. attached by a bolting mechanism or similar device that will prevent the beam from slipping or falling.**
- **An identification plate that clearly indicates the load rating and the method of attachment to the beam must be affixed to the beam clamp.**
- **When long or irregularly shaped beams are being hoisted, a two-point beam attachment and a spreader beam should be used.**
- **The load must never be hoisted over workers.**

For additional information, please call the Ministry of Labour Health & Safety Contact Centre.

This Ministry of Labour Alert has no legal effect and does not constitute and is not a substitute for legal advice. If you require specific assistance with respect to the interpretation of a legislative provision and its potential application to you please contact your legal counsel.

Remember that while complying with occupational health and safety laws, you are also required to comply with applicable environmental laws.

Please photocopy Ministry of Labour Alerts, distribute them widely and post them where people will see them.

Constructor Guideline: Health and Safety

- ISBN: 978-1-4249-6190-0
- Revised: March 2009
- Content last reviewed: June 2009

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Foreword

Foreword: Constructor Guideline

- ISBN: 978-1-4249-6190-0
- Revised: March 2009
- Content last reviewed: June 2009

This Guideline has been prepared to assist construction project owners, contractors and subcontractors in understanding who the constructor is under the Occupational Health and Safety Act (Act).

This Guideline is not intended to replace the Act or its regulations. In any case where this Guideline may differ from the Act and its regulations, the legislative provisions prevail.

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This Guideline is not intended to replace the Act or its regulations. In any case where this Guideline may differ from the Act and its regulations, the legislative provisions prevail.

This Guideline does not constitute legal advice and has no legal effect. If you require assistance with respect to the interpretation of a legislative provision and its potential application in specific circumstances, please contact your legal counsel.

While this Guideline will also be available to Ministry of Labour inspectors, they will apply and enforce the Act and its regulations based on the facts as they may find them in the workplace. This Guideline does not affect their enforcement discretion in any way.

1. Introduction

Introduction : Constructor Guideline

- ISBN: 978-1-4249-6190-0
- Revised: March 2009
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The **Occupational Health and Safety Act** (the Act) defines “constructor” and details the duties of a constructor. Whenever there is a “project”, there is a “constructor.” Who the constructor is at a particular time or particular phase of the project can sometimes be difficult to determine and may change due to the dynamic nature of the work, the numerous parties involved, and the continuous change in the workforce due to the very nature of construction work.

This Guideline provides assistance in answering the following questions:

- Who is a constructor?
- Who is an owner?
- Does every construction project have an owner and a constructor?
- What are the key duties of a constructor?
- What is the relationship of the constructor to the other parties on a project?
- What is the extent of a construction project?

2. Frequently Asked Questions

Frequently Asked Questions: Constructor Guideline

- ISBN: 978-1-4249-6190-0
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Who is a constructor?

The intent of the **Occupational Health and Safety Act** is to have one person with overall authority for health and safety matters on a project. This person is the constructor of the project.

Section 1 of the Act defines “constructor” as “a person who undertakes a project for an owner and includes an owner who undertakes all or part of a project by himself or by more than one employer”. The dictionary definition for

“undertake” is “make oneself responsible for”, which means a constructor is a person who is responsible for a project. The definition of “employer” in section 1 of the Act includes contractors and subcontractors. “Project” is also defined in section 1 of the Act.

The constructor is the party with the greatest degree of control over health and safety at the entire project and is ultimately responsible for the health and safety of all workers. The constructor must ensure that all the employers and workers on the project comply with the Act and its regulations.

Who is an owner?

Section 1 of the Act defines “owner” as including “a trustee, receiver, mortgagee in possession, tenant, lessee, or occupier of any lands or premises used or to be used as a workplace, and a person who acts for or on behalf of an owner as an agent or delegate”.

Does every construction project have an owner and a constructor?

Every project that is governed by the Act has both an owner and a constructor. The constructor will either be the owner of the project or a third party contracted by the owner to undertake the project for the owner.

However, an owner who engages an architect, professional engineer or other person solely to oversee the quality control of the work at a project does not necessarily become a constructor (subsection 1(3) of the Act). Such an owner could engage a third party as a constructor as well as the person engaged only to oversee the quality control of the project.

The following examples illustrate some common situations for all owners of projects, including homeowners. Work in or about a private residence, performed solely by the homeowner or occupant (or a servant of either), is not subject to the Act. However, where the homeowner hires anyone to do the work, the Act applies in respect of that work. Who the constructor would be would depend on the circumstances.

- **When an owner hires only one employer (contractor) to do all the work on a project, then that contractor is undertaking the work and is the constructor. This contractor is often referred to as the general contractor.**
 - **In the situation above, the general contractor may, in turn, subcontract some or all of the work to another party. He or she remains the constructor for the project, as long as he or she is the only party with whom the owner contracts to undertake the project.**
 - **In the situation above, if the owner is an employer who assigns his or her workers to work on the same project as the general contractor, he or she may become the**

constructor if the general contractor was not informed of and did not agree to the presence of the owner's workers and does not exercise control over them. However, if the general contractor agrees to use the owner's workers and to direct their work, he or she will remain the constructor.

- When an owner undertakes a project by contracting with more than one employer (contractor), the owner is undertaking the project and is the constructor.**
- When an owner contracts with more than one employer (contractor), the owner may enter into a contractual agreement with one of these employers or a third party to undertake the project on behalf of the owner. Provided the owner has relinquished control over the project and the employer or third party has assumed control, that employer or third party is the constructor, even if the owner is paying the other contractors on the project. The owner may also engage the services of a professional engineer, an architect, or another person solely to oversee the quality control of the project without becoming the constructor.**
- Generally, when an owner of a project is an employer and uses his or her own workers to carry out that project, the owner is undertaking the project and is the constructor.**

In summary, on all projects, either the owner or someone hired by the owner is the constructor. However, if the work is being performed by a homeowner or occupant (or a servant of either) in or about a private residence the Act does not apply in respect of that work.

Everyone involved with a construction project should be clear on who is undertaking the project, who the constructor is, and the responsibilities of all of the parties associated with the project. It is important to put this information in writing.

What are the key duties of a constructor?

Constructors have the following key responsibilities, on the projects that they undertake:

- ensure that the measures and procedures prescribed by the Act and its regulations are carried out on the project,**
- ensure that every employer and every worker performing work on the project complies with the Act and its regulations,**
- ensure that the health and safety of workers on the project is protected,**
- ensure that a health and safety representative or a joint health and safety committee is selected or established, when and as required,**

- ensure that the Ministry of Labour is notified of a project, when and as required,
- ensure that the Ministry of Labour is notified of an accident or occurrence, when and as required,
- ensure that every contractor or subcontractor receives a list of all designated substances present at the project before the prospective contractor or subcontractor enters into a binding contract for the supply of work on the project,
- ensure that written emergency procedures are established for the project and posted, and
- appoint a supervisor for every project at which five or more workers will work at the same time.

For a more detailed list of constructor duties, see the appendices.

Constructors who are also employers, and constructors who are also project owners, have other duties under the Act and its regulations that must be fulfilled.

What is the relationship of the constructor to the other parties on a project?

The constructor has overall responsibility on a project for compliance with the Act, the Regulation for Construction Projects (O. Reg. 213/91) and other applicable regulations. The constructor may also have duties as an employer or as an owner.

What is the extent of a project?

Individual projects are typically identified by their location, the owner of the project, and the time frame for construction activities to be undertaken by the identified constructor at that particular location.

The owner of an industrial establishment, a factory, a hospital, a production plant or municipal premises may decide to undertake the project by himself/herself (and thus become the constructor); alternatively, that owner may contract the construction activities on their premises to one general contractor, who would be in charge of undertaking the construction activities for the owner (and thus would be the constructor of the project).

Typically, construction activities taking place at the premises of one address owned by a person (individual, group of individuals, partnership, or corporation) during a determined period of time with an identified goal – of erecting a new building or conducting repairs, structural maintenance, addition or demolition of an existing structure – are deemed to be part of a single project, which would have an owner and constructor (who may or may not be the same as the owner).

Pursuant to section 4 of O. Reg. 213/91, the owner of such a project may request a Director at the Ministry of Labour to designate part of a project as a

project for the purposes of the Act and the regulation. Each designated project would have its own separate constructor. The Director, in considering such a request, would look at the possibility for separating the construction activities being undertaken, either in space or in time.

Space considerations would include independent access and egress, toilets and wash-up facilities. Clear boundaries should exist among the various projects requested to be identified as separate. The extent to which each potential constructor for each project would have control over the construction activities carried out on that project and over the health and safety of the workers on that project, independently from the other projects, would be instrumental in the Director's decision. Each one of the separate projects would have its own Joint Health and Safety Committee or Health and Safety Representative, when and as required, independently from the other project or projects.

Construction activities taking place at the same address, with one owner, may be considered separate projects when the activities are clearly separated in time. For instance, demolishing an old structure and erecting a new one could be undertaken as two separate projects: Project A (consisting of demolishing the old building and removing the resulting debris) would be undertaken by constructor C1, and Project B (consisting of erecting a new structure) would be undertaken by constructor C2. In this instance, Project B starts only after the completion of Project A. If there were to be any overlap in time between the two projects, the owner would have to apply to a Director of the Ministry of Labour to designate them as separate projects.

3. Case Studies

Case Studies: Constructor Guideline

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The following case studies are intended to provide general guidance through the use of examples. They do not constitute determinations by the Ministry of Labour and have no legal effect. Identification of the constructor must be determined on a case-by-case basis having regard to all the circumstances.

3.1

The owner of a chain of department stores hires a contractor, ABC Builders, to erect a large box-type store. The owner is only paying this contractor to construct the shell of the store. The owner subsequently hires (and pays) two other contractors to do work on the store. One contractor is hired to do the electrical work and another to do the interior finishing. However the owner has

entered into a contractual agreement with “ABC Builders” to take on the role of a constructor under the Act. ABC Builders is willing to take on this role and agrees to undertake the responsibility of overseeing all other employers on the project. Who is the constructor?

“Undertake” does not simply mean “pay”. The fact that ABC Builders is willing to take on the role of constructor and ABC Builders’ contracts with the owner to do so is evidence that ABC Builders is the constructor.

If, however, it became evident that the owner retained a significant degree of control over the project, or the contractors doing the electrical and interior work were not under the authority of ABC Builders, the owner could be deemed to be the constructor.

3.2

A hospital is having a new x-ray facility constructed. A contractor is hired to carry out the project. Before the project is completed, the hospital arranges to have a new x-ray machine installed by its supplier. Who, apart from the supplier, should be responsible for the safe installation of the x-ray equipment?

If the hospital introduced the x-ray machine supplier to the contractor, asked the contractor to coordinate the work with the supplier, and amended the contractual agreement with the contractor to reflect the situation, and the contractor did, in fact, exercise control over the installation, that would serve as strong evidence that the contractor was the constructor for the purpose of the installation.

However, if the hospital decided to allow the supplier to install the x-ray machine, and the hospital rather than the contractor exercised control, then the hospital would become the constructor for the whole project, and would have all of the responsibilities of a constructor. However, once the x-ray machine supplier finished the installation work, the original contractor could be considered the constructor again if the hospital can establish that it is no longer exercising control over the project and can demonstrate that the original contractor has resumed control over the project.

As a formal matter, it is very important for the owner (in this case, the hospital) to clarify who the constructor is, in writing, and to have the designated constructor’s signature on such an agreement. As a substantive matter, who is actually exercising control is a critical consideration.

3.3

An owner hires a third party (such as a project manager) to oversee the construction of a high-rise office tower. The third party schedules the work, ensures its quality, and advises the owner when payments are to be made to the contractors, who are working under contract to the owner. The third party hires or approves the hiring of the contractors on the project. That third party also looks after safety on the project and files a Notice of Project form with the

Ministry of Labour stating that he or she is the constructor. Who is the constructor?

The project manager, hired by the owner, would likely be considered to be the constructor as he/she is exercising control over the project, and also explicitly agreed to this role by signing the Notice of Project form and filing it with the Ministry of Labour, identifying himself/herself as the constructor.

3.4

If the third party in Case Study 3.3 does not file a Notice of Project form with the Ministry of Labour (assuming the project does not warrant such filing as it does not fall within the parameters outlined in section 6 of O. Reg. 213/91), who is the constructor?

This would depend on a substantive assessment of the situation: e.g. Who is undertaking the project? Who is exercising control? Who is subject to what contractual obligations? etc.

3.5

Who is the constructor if, as in Case Study 3.3, the owner brings in and oversees contractors to do specific work (such as painting and plumbing) in the same areas of the project that is being worked on by contractors who are being overseen by the third party?

The owner would be the constructor, because the third party would only be undertaking part of the project. Despite having initially identified himself/herself as the constructor, the third party has no control over the additional contractors brought in by the owner. The owner in this case is directly undertaking parts of the project and he or she therefore has altered the conditions under which the third party accepted the constructor's role and was made the constructor.

The third party would still be the constructor if he or she agreed to, and did oversee the additional contractors. Such an agreement between the third party and the owner should be in writing.

3.6

The owner of a mall is conducting some repairs in the parking lot/mall entrance while individual storeowners (or renters) in the mall are conducting construction activities within the boundaries of their own premises. Who is the constructor?

It is likely that there are several projects and several constructors. The parking lot/mall entrance repairs likely constitute one project. The constructor would be the mall owner, or someone hired by the mall owner to undertake the project on its behalf. In addition, each individual store is a project. Each storeowner, or

someone hired by that owner to undertake the project on its behalf, would be the constructor for that particular project.

3.7

A factory is adding a new production line at the north-east corner of its facility. A general contractor, BUD, has been hired to undertake the construction of this new production line. At the same time, the factory decides to upgrade its storage facilities, located at the north-west corner of their premises. It hired a contractor, DUB to undertake this upgrade, consisting of structural maintenance and the addition of one storey to the existing storage space. Contractual agreements with both contractors, BUD and DUB stipulate that they must comply with the Health and Safety Policy of the factory while doing work on its premises. The factory has the two contractors each submit a Notice of Project to the Ministry of Labour, each identifying himself as the constructor for the project contracted with the factory. Both contractors will be doing the work at the same time and sharing the entrance to their respective projects. They will also share the washrooms and washout facilities. How many projects are there? How many constructors are there? Who are they?

The factory owner or operator having contracted two parties at the same time to carry out construction activities at the same address, would likely be considered the constructor, in spite of the fact that each of the contractors filed a Notice of Project stating that they are the Constructor on their project. The two contractors share the entrance, they share washroom facilities, and they are located at the same address, which is owned by the same owner and are carrying out construction activities at the same time. Unlike Case Study 3.3, where the third party was responsible for the entire construction of an office tower, it is the owner here who is undertaking the project by hiring two contractors, unless a Director designates two separate projects, under section 4 of O. Reg. 213/91, one undertaken by DUB and the other by BUD.

3.8

An owner leases land to a company, which then arranges for the construction of a retail outlet on the leased land. Under the terms of the lease, the owner is responsible for site improvements, such as parking lots and roads, and hires a contractor to do this work. Workers constructing the retail outlet must cross the road/parking lot project to access their project. Who is the constructor? There are two separate owners: the owner of the land and the lessee (under the Act, “owner” is defined as including a lessee) and two separate projects, despite the fact that they are physically joined. Each project would have its own constructor.

Because the projects are physically joined, the constructor doing the work on the parking lot/road would have to provide safe access to everyone who needed to get to the retail outlet project, primarily the other constructor’s workers. Safe access would likely be through a barricaded portion of the

outside project, which would have to be equipped with adequate hoarding or overhead protection to ensure the safety of everyone passing through. The constructor of the retail outlet would have the responsibility to ensure that safe access and egress for their workers has been provided by the constructor doing the work on the parking lot/roads.

3.9

A homeowner hires Contractor A to do home renovation. Contractor A in turn hires subcontractors to help him/her out. Then the homeowner hires another contractor, Contractor B to do something outside of the scope of work for Contractor A. Both contractors work simultaneously on the house. Who is the constructor?

Given that the homeowner is undertaking the project (the home renovation) by more than one employer/contractor, the homeowner would be the constructor, and would have overall responsibility for health and safety on the project.

3.10

The homeowner in Case Study 3.9 asks Contractor A to assume the role of the constructor on the home renovation project, and to oversee the work being done by Contractor B. Contractor A agrees to this arrangement. Furthermore, the homeowner advises Contractor B that Contractor A is the constructor, and that accordingly Contractor B should follow instructions as given by Contractor A. However, the homeowner will still be paying Contractor B. These arrangements are documented in writing. Who is the constructor?

Provided these arrangements are reflected on the project, Contractor A would be the constructor.

3.11

A homeowner hires a contractor to do construction work: repairs and addition of a new section to the existing home. However, the homeowner decides to supply the construction materials to the contractor and also to direct the work. Who is the constructor?

Because the owner has assumed direction over the work, the owner becomes the constructor. If the owner were not to direct the work, the contractor hired to do the construction work would be the constructor, as he or she would have been undertaking the construction project for the owner. Once the owner decides to direct the work, he or she becomes the one undertaking the project. Having decided to hire a contractor does not change the fact that the owner is directly in control of construction (directing the work) and of the health and safety of the workers.

If the homeowner was only to supply the construction materials to the contractor and have the contractor do all the repairs and build the new section, the contractor may be considered the constructor.

Appendix A

Appendix A: Constructor Guideline

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- Revised: March 2009
- Content last reviewed: June 2009

Constructor's Duties under the Occupational Health and Safety Act, R.S.O. 1990, c. O.1

The following chart sets out a summary of the duties of a constructor. While efforts have been made to ensure accuracy and completeness, the chart is intended for general guidance and assistance only. It does not constitute legal advice and does not replace the legislative provisions. In the event of any inconsistency between the chart and the Occupational Health and Safety Act and applicable regulations, the latter prevails. For the purpose of determining the precise duties of a constructor, reference should always be made to the official volumes of the Occupational Health and Safety Act and applicable regulations.

<u>Duty</u>	<u>Section of Act</u>
<u>To cause the workers to select at least one health and safety representative at a project or other workplace where no committee is required under section 9 and where the number of workers regularly exceeds five.</u>	<u>8(1)</u>
<u>To agree upon a schedule of health and safety inspections, allowing the health and safety representative to inspect the physical conditions of the workplace at least once a year, inspecting part of the workplace each month--if a health and safety inspection cannot be completed at least once a month.</u>	<u>8(8)</u>
<u>To provide a health and safety representative with information and assistance as the member may require for the purpose of carrying out an inspection of the workplace.</u>	<u>8(9)</u>

<u>To respond in writing within 21 days to written recommendations from a health and safety representative (H&S Rep) based on a worksite health and safety inspection.</u>	<u>8(12)</u>
<u>To ensure that the written response required in section 8(12) contains a timetable for the implementation of the recommendations that the constructor agrees with, and an explanation for the recommendations he/she does not agree with.</u>	<u>8(13)</u>
<u>To cause the selection and maintenance of a Joint Health and Safety Committee (JHSC) for a workplace where and as required</u>	<u>9(3)and 9(4)</u>
<u>To select the members of the JHSC that exercise managerial functions and, to the extent possible, do so at the workplace</u>	<u>9(9)</u>
<u>To ensure that at least one of the JHSC members representing Management and at least one of the members representing workers are certified when the project has 50 or more workers that are regularly employed and is expected to last more than three months.</u>	<u>9(12)(13)</u>
<u>If there is more than one certified JHSC member representing Management, the constructor shall designate one or more of them who then becomes solely entitled to exercise the rights and required to perform the duties under this Act, of a certified member representing a constructor.</u>	<u>9(16)</u>
<u>If a certified member resigns from the JHSC or is unable to act in his or her functions, the constructor shall take all steps necessary to ensure that the requirements for certified members are met.</u>	<u>9(17)</u>
<u>The constructor is to provide the JHSC with the following information upon request:</u> <ol style="list-style-type: none"> <u>1. (i) the identification of potential or existing hazards of materials, processes or equipment, and</u> <u>2. (ii) health and safety experience and work practices and standards in similar or other industries of which the constructor has knowledge.</u> 	<u>9(18)(d)</u>
<u>Provide the JHSC with any information concerning the conducting or taking of tests of any equipment, machine, device, article, thing, material or biological, chemical or physical agent in or about a workplace, and consult with the JHSC and have them represent the workers and be present while such testing is conducted</u>	<u>9(18)(e) & 9(18)(f)</u>
<u>A constructor who receives written recommendations from the JHSC must respond within 21 days</u>	<u>9(20)</u>
<u>The constructor will ensure that the written response required in section 9(20), contains a timetable for the implementation of the</u>	<u>9(21)</u>

<u>recommendations that the constructor agrees with, and an explanation for the recommendations the constructor does not approve of.</u>	
<u>The constructor will provide the JHSC member with any information required for them to perform their workplace inspections</u>	<u>9(29)</u>
<u>The constructor is responsible for posting the names and work locations of all JHSC members in a conspicuous location where they will come to the attention of most workers</u>	<u>9(32)</u>
<u>The constructor is responsible for consulting with a JHSC member, or health and safety rep, regarding proposed testing strategies for investigating industrial hygiene in workplaces; and providing the representative with information on these strategies.</u>	<u>11(1) & 11(2)</u>
<u>The constructor shall ensure, on a project undertaken by the constructor that,</u> <ol style="list-style-type: none"> <u>1. (a) the measures and procedures prescribed by this Act and the regulations are carried out on the project;</u> <u>2. (b) every employer and worker performing work on the project complies with this Act and the regulations; and</u> <u>3. (c) the health and safety of workers on the project is protected.</u> 	<u>23(1)</u>
<u>Where so prescribed, a constructor shall, before commencing any work on a project, give to a Director notice in writing of the project containing the prescribed information.</u>	<u>23(2)</u>
<u>The constructor for a project shall ensure that each prospective contractor and subcontractor for the project has received a copy of the list of designated substances that are present on the job site, before the prospective contractor or subcontractor enters into a binding contract.</u>	<u>30(4)</u>
<u>If certified members of the JHSC determine that a dangerous circumstance exists and direct the constructor to stop work or stop the use of the equipment, machine or thing, the constructor must immediately comply with this request in a manner that will not endanger a person. (Bilateral work stoppage)</u>	<u>45(5)</u>
<u>After taking steps to remedy the dangerous circumstances, the constructor may request the certified members or an MOL inspector to cancel the direction</u>	<u>45(7)</u>
<u>The constructor must comply immediately with a direction from a certified member to stop work or stop the use of any equipment, machine or thing if the certified member finds that dangerous</u>	<u>47(3)</u>

<u>circumstances exist and ensure that compliance is effected in a way that does not endanger a person</u>	
<u>After complying with the direction, the constructor must promptly investigate the matter in the presence of the certified member</u>	<u>47(4)</u>
<u>The constructor shall notify an inspector, JHSC/health and safety rep, and trade union (if any), where a person is killed or critically injured from any cause at a workplace. This is to be done immediately by telephone, or other direct means.</u>	<u>51(1)</u>
<u>Where a notice or report is not required under section 51 or 52, the constructor who has an accident, explosion, fire, flood, failure of any equipment or machine, cave-in, or other incident as prescribed occur at a project site, shall within two days provide notice in writing of the occurrence to a Director, committee, health and safety rep and trade union (if any).</u>	<u>53</u>
<u>If required in writing by an inspector, the constructor is to provide a report bearing the seal and signature of a professional engineer stating,</u> <ol style="list-style-type: none"> <u>1. (i) load limits of a floor, roof or temporary work or part of a building, structure or temporary work,</u> <u>2. (ii) that a floor, roof or temporary work is capable of supporting or withstanding the loads being applied to it or likely to be applied to it, or</u> <u>3. (iii) that a floor, roof or temporary work, or part of a building, structure or temporary work is capable of supporting or withstanding all loads to which it may be subjected without causing the materials to be stressed beyond the allowable unit stresses established under the Building Code Act or established by regulation.</u> 	<u>54(1)(M)</u>
<u>Where an inspector makes an inspection under the powers conferred by the Act, the constructor shall afford a JHSC member, a health and safety representative or a knowledgeable worker selected by the trade union(s), an opportunity to accompany an inspector during his/her physical inspection of the workplace or parts thereof.</u>	<u>54(3)</u>
<u>Where an inspector finds a contravention of the Act or the regulations, he or she may order the constructor (among others) to comply with the provision and may require the order to be carried out (forthwith, or within the specified time frame). Failure to comply with an order constitutes an offence</u>	<u>57(1), 66</u>

<u>To post a copy or copies of orders or reports issued by an Inspector in a conspicuous place at the workplace where it is most likely to come to the attention of the workers and shall provide the JHSC or health and safety rep. with a copy; and if the order resulted from a complaint of a contravention of the Act or regulations, provide a copy of it to the person who made the complaint if the complainant requests it.</u>	<u>57(10)</u>
<u>Where an order has been made under section 57(6)(c), not allow a worker to enter the workplace except for the purpose of doing the work necessary or required to remove the danger or hazard and only where the worker is protected from the danger or hazard.</u>	<u>58</u>
<u>To submit a notice of compliance to the Ministry within three days of receiving an order, if the constructor believes compliance with the inspector's order has been achieved.</u>	<u>59(1)</u>
<u>The constructor shall sign the notice and ensure the following information accompanies it,</u> 1. <u>(a) a statement of agreement or disagreement with the contents of the notice, signed by a member of the JHSC or by a health and safety representative, or</u> 2. <u>(b) a statement that the member or representative has declined to sign the statement.</u>	<u>59(2)</u>
<u>The constructor must post the notice and the order for a period of fourteen days following its submission to the Ministry in a place or places in the workplace where it is most likely to come to the attention of workers.</u>	<u>59(3)</u>

Appendix B

Appendix B: Constructor Guideline

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- Content last reviewed: June 2009

Constructor's Duties under the Regulation for Construction Projects Ontario Regulation 213/91

The following chart sets out a summary of the duties of a constructor. While efforts have been made to ensure accuracy and completeness, the chart is intended for general guidance and assistance only. It does not constitute legal advice and does not replace the legislative provisions. In the event of any inconsistency between the chart and the Occupational Health and Safety Act and applicable regulations, the latter prevails. For the purpose of determining

the precise duties of a constructor, reference should always be made to the official volumes of the Occupational Health and Safety Act and applicable regulations.

Duty	Section of Regulation
Complete an approved registration form before beginning work at a project	5
Ensure that each employer on the project provides a completed approved registration form	5
Ensure that a copy of the employer's completed registration form is kept on the project while the employer is working on the project	
Where the nature of the project requires it, complete and file a Notice of Project (NOP) at the Ministry Office closest to the project generally before beginning work	6
Post the NOP in a conspicuous place on the Project	6
If NOP is not required but project includes work on a trench more than 1.2 metres deep into which a worker may enter, notify, by telephone or fax, the Ministry Office located nearest to the project before work begins	7
A constructor who submits a report under subsection 51 (1) of the Act (notice of death or injury) or gives a notice under section 52 or 53 of the Act (notice of accident, etc.) shall also provide, within 14 days after the occurrence, a professional engineer's written opinion stating the cause of the occurrence.	12
Post in a conspicuous place at the project, and keep posted while work is done, a notice setting out: <ol style="list-style-type: none"> 1. The constructor's name, and if the constructor carries on business in a different name, the business name 2. The address and telephone number of the constructor's head office or principle place of business in Ontario 3. The address and phone number of the nearest <u>office of the Ministry</u> 4. Within 48 hours of selection for a project, the name, trade and employer of each H&S Rep or JHSC member 	13

Appoint a supervisor for each project with 5 or more workers working at the same time	14
Establish written Emergency Procedures at a Project and ensure that they are followed in case of an emergency; Post them in a conspicuous place at the project; review them with JHSC or H&S Rep as applicable	17
Ensure that each worker has ready access to a telephone or other system of two-way communication system on the project in the event of an emergency	18
Keep records required by this regulation for at least one year after the project completion	19
The constructor shall keep the design of a horizontal life line system at the project while the system is in use.	26.9(8) para 6
Ensure that facilities (toilet, urinal and clean-up facilities) are provided or arranged at a project before the project is started and that each worker has reasonable access to such facilities.	29(3)
If the location of the facilities is varied, the constructor shall document in writing the locations and reasons for the variance and provide the document to the JHSC, H&S Rep or workers as applicable or the workers if there is no JHSC or H&S Rep.	29(9)
The constructor shall inform the workers of the location of the facilities & post such a location in a conspicuous place on the project if it is practical to do so	29(10)
The constructor shall keep at the project for the duration of the project a record of the servicing, cleaning and sanitizing of the facilities and the variance document required under subsection 29(9)	29(12)
If a temporary standpipe is installed in a building under construction, the constructor shall post at the project, or have available for review, a floor plan of the building indicating, <ol style="list-style-type: none">1. (a) the location of the hose outlets on each floor;2. (b) the location of the point on the perimeter of each floor that is furthest from the hose outlet on that floor; and3. (c) the location of each exit on each floor.	57(11)
Re temporary standpipe: The constructor shall give a copy of the floor plan to the fire department located nearest to the project.	57(12)

The constructor shall keep the design drawings for formwork and falsework and the statements from the person who carried out the inspection (Professional engineer or competent worker) of such works on the project while the formwork or the falsework is in use.	89(5)
The constructor shall keep the design drawings on the project while the formwork, falsework or re-shoring is in use.	92(2)
The constructor shall give notice to the <u>Ministry office</u> located nearest the project, in person, by telephone, by fax or by electronic means before the first multi-tiered load hoisting operation is started at a project	103.1(10)
The constructor shall make available to an inspector upon request a copy of the certification by the professional engineer who would have verified and certified the results of a test on the structural components of a scaffold and the corresponding rated load of the scaffold.	127(3)
The constructor shall keep at a project the design drawings and the written statement for a scaffold, while the scaffold is erected, for scaffolds designed by a professional engineer.	130(5)
The constructor shall keep a copy of the design drawings and the required statement on a project while the suspended scaffold or suspended platform that is subject to the requirements of the section is on the Project	139(7)
Before a multi-point suspended scaffold is erected, the constructor shall ensure that the professional engineer responsible for the structural integrity of the permanent building or structure from which the scaffold is suspended provides a written report approving the design loads imposed on the building or structure by the scaffold	142.2 (14)
Before erecting or dismantling a multi-point suspended scaffold, the constructor shall give notice, in person, by telephone, by fax or by electronic means, to the <u>Ministry office</u> located nearest the project	142.3 (1)
The constructor must keep a copy of the required professional engineer's report and design drawings, any written approvals of deviations from the design drawings (approved by a professional engineer) and the inspection report of a professional engineer in respect of a multi-point suspended scaffold	142.4

The constructor of a project where a multi-point suspended scaffold is used shall keep a written record of all inspections, tests, repairs, modifications and maintenance performed on the scaffold and make copies of the record available to an inspector upon request.	142.8 (1)
Before beginning any hoisting operation involving a worker using a work platform, bucket, basket, load, hook, sling or similar device that is capable of moving and is supported by the cable to a crane or similar hoisting device, the constructor shall notify by telephone an inspector in the <u>office of the Ministry of Labour</u> nearest to the project	153 (11)
The constructor shall keep all design drawings, test reports, written statements and certification documents required under this section with the crane at all times during the hoisting operation	153 (14)
On request, the constructor shall provide an inspector with copies of any document described in subsection (14)	153 (15)
The constructor shall keep at the project while a tower crane is erected a copy of the signed design drawings for its foundation, shoring and bracing and any written opinion about the drawings by a structural engineer.	157(6)
The constructor shall keep the report of the non-destructive testing approved by the Canadian General Standards Board of the structural elements and components of a tower crane, at the project while the crane is erected	158(3)
The constructor shall keep the report prepared by a professional engineer or competent worker designated by a professional engineer who had conducted a required inspection of a tower crane at a project while the crane is erected	159(5)
The constructor shall ensure that the structural engineer responsible for the structural integrity of a building or structure reviews and approves in writing the design drawings and specifications for a derrick, stiff-leg derrick or similar hoisting device before it is installed.	166(4)
The constructor shall keep a copy of the design drawings and specifications for a derrick, stiff-leg derrick or similar hoisting device and the report prepared under subsection (6) at a project while the derrick, stiff-leg derrick or similar hoisting device is on the project.	166(7)

The constructor shall take precautions against hazards caused by helicopter rotor downwash.	167(4)
A constructor shall, <ol style="list-style-type: none"> 1. (a) establish and implement written measures and procedures adequate to ensure that no part of a vehicle or equipment or its load encroaches on the minimum distance permitted by subsection (2); and 2. (b) make a copy of the written measures and procedures available to every employer on the project. 	188(4)
The constructor shall, <ol style="list-style-type: none"> 1. (a) ensure that written measures and procedures for complying with this section are established and implemented, so that workers are adequately protected from electrical shock and burn; and 2. (b) make a copy of the written measures and procedures available to every employer on the project. 	191(4)
Before any worker enters the confined space or begins related work with respect to the confined space, the constructor shall prepare a co-ordination document to ensure that the duties imposed on employers by this Part are performed in a way that protects the health and safety of all workers who perform work in the confined space or related work with respect to the confined space.	221.4(2)
The constructor shall provide a copy of the co-ordination document to each employer of workers who perform work in the same confined space or related work with respect to the same confined space; and to the project's joint health and safety committee or health and safety representative, if any.	221.4(3)
The constructor shall provide a copy of the confined space program to the project's joint health and safety committee or health and safety representative, if any.	221.5(4)
The constructor shall ensure that a copy of the program is available to, <ol style="list-style-type: none"> 1. (a) any other employer of workers who perform work to which the program relates; and 2. (b) every worker who performs work to which the program relates, if the project has no joint health and safety committee or health and safety representative. 	221.5(5)

<p>If there is a possibility of unauthorized entry into a confined space at a project, the constructor shall ensure that each entrance to the confined space,</p> <ol style="list-style-type: none"> 1. (a) is adequately secured against unauthorized entry; or 2. (b) has been provided with adequate barricades, adequate warning signs regarding unauthorized entry, or both. 	221.15
<p>If an excavation may affect the stability of an adjacent building or structure, the constructor shall take precautions to prevent damage to the adjacent building or structure.</p>	229(1)
<p>The constructor shall keep on the project a copy of every opinion given by a professional engineer, for the purpose of an excavation that is not a trench and is not made in Type 4 soil and with respect to which a professional engineer has given a written opinion that the walls of the excavation are sufficiently stable that no worker will be endangered if no support system is used, while the project is in progress.</p>	234(4)
<p>The constructor shall keep the design drawings and specifications for a prefabricated, hydraulic or an engineered support system at a project while the system is on the project.</p>	236(7)
<p>The constructor shall file with a Director two copies of the design drawings and specifications for an engineered support system before it is used on the project.</p>	236(8)
<p>Before a support system is used for repairing underground pipe breaks, the constructor shall submit two copies of its design drawings and specifications to the <u>office of the Ministry of Labour</u> nearest to the project.</p>	237(3)
<p>If a shaft is to be cut in sound rock, the constructor shall obtain a written opinion from a professional engineer as to whether the walls of the shaft need to be supported by rock bolts or wire mesh to prevent the spalling of loose rock.</p>	279(3)
<p>The constructor shall submit to a Director duplicate copies of design drawings for the shoring and bracing before construction of the shoring and bracing is begun.</p>	280(4)
<p>The constructor shall keep a copy of design drawings for the shoring and bracing at the project while the shoring and bracing are in use.</p>	280(5)

If a tunnel is to be cut in sound rock, the constructor shall obtain a written opinion from a professional engineer as to whether the sides and roof of the tunnel need to be supported by rock bolts or wire mesh to prevent the spalling of loose rock.	307(2)
The constructor shall keep available for inspection at a project the design drawings for the primary supports.	307(7)
No constructor or employer shall begin work at a project where a worker may be subjected to compressed air until the following requirements of this section are met: <ol style="list-style-type: none"> 1. The employer of workers who may be subjected to compressed air at a project shall give a Director written notice of the intended use of compressed air on the project at least fourteen days before beginning work on the project 2. Before work is begun in compressed air, the employer shall obtain written permission from a Director 	334(1)(2)(3)
Before work is begun in compressed air at a project, a constructor shall give written notice (containing the required information), <ol style="list-style-type: none"> 1. (a) to the local police department and the fire department and public hospital nearest to the project; and 2. (b) to a Director, together with the names and addresses of those to whom notice is given under clause (a). 	335(1)
The constructor at a project shall provide workers with the sturdy metal or plastic badge required for a worker who works in compressed air. Such a badge shall meet the requirements outlined in subsection 339(2)	339(3)
A constructor shall supply at least one medical lock at a project where work in compressed air is done and shall maintain it ready for operation while work in compressed air is being done.	356(1)
The constructor shall send to a Director before construction of an air lock begins a copy of the design drawings for the air lock.	365(4)
The constructor shall keep at a project a copy of the design drawings for an air lock while the air lock is at the project.	365(5)

Consistent health and safety practices will help strengthen the construction sector in Ontario. Learn more about our goals and 16 recommendations in this plan.

Excavation Hazards

- Content last reviewed: April 2020

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer.

Overview

Hazards involving excavations, in particular trenches, can lead to serious incidents involving workers at construction sites.

Cave-ins

Workers can be critically injured or die as a result of excavation cave-ins. Many cave-ins occur on small jobs of short duration, such as water, gas, electrical and sewer line connections as well as building foundation repair projects.

Employers, supervisors and workers must follow the requirements set out in the Occupational Health and Safety Act (OHSA) and O. Reg. 213/91 – Construction Projects.

More excavation-related hazards

- falls into trenches or excavations
- tripping over equipment, debris and spoil
- excavated material or other objects falling on workers
- exposure to underground services or overhead electrical cables
- unstable adjacent structures
- mishandled or poorly placed materials
- hazardous atmosphere (noxious gases/lack of oxygen)
- toxic, irritating or flammable and explosive gases
- incidents involving vehicles and other mobile equipment

Plan before you dig

Obligations under O. Reg. 213/91 – Construction Projects

- removal of debris and excavated soil near excavation site [s. 232]
- preventing persons from falling into excavation [s. 233(4)]
- removal of excess water from excavations [s. 230]
- identification and locating of overhead power lines [s. 188] and underground services [s. 228]
- identification of soil types [s. 226] and applying controls as required such as: sloping, shoring or prefabricated, hydraulic or engineered systems [s. 234 to 242]
- notification requirements [s. 6 (a), (g) and (h)]
- requirements for when the support system must be engineered [s. 235(2) and s. 236]
- prepare emergency plan [s. 17 and 18]
- worker(s) not performing work in a trench unless another worker is working above ground [s. 225]
- obtaining utility locations before digging [s. 228]

Reasonable precautions under OHSA section 25(2)(h)

- determine how workers will enter and exit excavation
- know in advance what excavation equipment and tools are needed
- consider possibility of environmental hazards (rain) in excavation
- be aware of nearby vehicles and mobile equipment causing soil to vibrate
- provide training to workers

It's the law!

Notifications

A constructor is required to complete a Notice of Project when:

- a project exceeds \$50,000 or
- excavation is planned for a trench that a worker may enter and that trench:
 - is more than 300 metres long or
 - more than 1.2 metres deep (47 inches) and more than 30 metres (98 feet) long or
 - is required by regulation to be designed by a professional engineer [O. Reg. 213/91 s. 6 (a), (g) and (h)]

A Notice of Trench Work must be given in person or by phone or fax for a trench if section 6 of O. Reg. 213/91 – Construction Projects does not apply, but

the project includes digging a trench more than 1.2 metres deep (47 inches) into which a worker may enter. [O. Reg. 213/91 s. 7]

Mark and locate utilities: Employers must ensure all gas, electrical and other services are located and marked in and near the area to be excavated. If a service poses a hazard, it must be shut off and disconnected before the excavation activity begins. If a potentially hazardous service cannot be disconnected, the service owner must be asked to supervise the service's uncovering during the excavation. [O. Reg. 213/91 s. 228]

Adjacent structures: Constructors must prevent damage to adjacent structures by engaging a professional engineer who must specify in writing the precautions to be taken. [O. Reg. 213/91 s. 229]

Soil strength: Determine the soil type to protect excavation walls from collapsing. This can be determined by doing things such as inspecting trenches and excavations following a rainfall, melting snow, thawing earth and overflows from nearby streams, storm drains and sewers. The soil type determines the strength and stability of the excavation walls. [O. Reg. 213/91 s. 226]

Wall stability: Strip the wall of a trench or excavation of any loose rock or other material, including ice, that may slide, roll or fall on a worker. [O. Reg. 213/91 s. 232]

Equipment: Keep heavy equipment, excavated soil or rock and construction material at least one metre away from the upper edges of the trench or excavation. Do not position or operate a vehicle or machinery in a manner that could affect the wall's stability. [O. Reg. 213/91 s. 233]. If a drilling operation is underway, ensure that a restricted access zone has been established to prevent access by equipment [O. Reg. 213/91 s. 156.2 (2)(e)]

Work space: Maintain a clear work space of at least 450 millimetres (18 inches) between the wall of an excavation and any formwork, masonry or similar wall. [O. Reg. 213/91 s. 231]

Fall protection: Provide a barrier at least 1.1 metres (42 inches) high at the top if an excavation does not meet regulatory slope requirements and is more than 2.4 metres (eight feet) deep. [O. Reg. 213/91 s. 233(4)] If a drilling operation is underway, ensure that a restricted access zone has been established and that workers required within proximity to the hole are using appropriate fall protection. [O. Reg. 213/91 s. 156.2 (2)(e and f)]

Protect yourself: Never enter a trench deeper than 1.2 metres (47 inches) unless the walls are sound, made of solid rock, properly sloped, shored or protected by a trench box. Never work alone in a trench.

Protective systems: Workers must be protected against trench or excavation cave-ins and other hazards using three basic methods:

1. sloping which involves cutting back trench walls at an angle, inclined away from the excavation.
2. shoring which helps support trench and excavation walls to prevent movement of soil, underground utilities, roadways and foundations.

Timber and hydraulic systems are the most commonly used supports to shore up walls.

3. prefabricated support systems (for example, trench boxes and shields) which can prevent soil cave-ins.

"Competent person": Trenches and excavations must be inspected daily for hazards, and when conditions change, before workers enter them. This must be done by a "competent person", as defined by the OHSA.

Entry and exit: Provide safe access and egress for workers at excavations by means of ladders, steps, ramps, or other safe methods of entering or exiting. Trenches must have ladders placed in the area protected by the support system and be accessible in the event of a collapse. [O. Reg. 213/91 s. 240]

Some general duties of workplace parties

Employers

Employers have several duties and responsibilities under the OHSA and O. Reg. 213/91.

Some examples of employers' duties:

- provide information, instruction and supervision to workers to protect their health and safety, including on safe work policies and procedures specific to the workplace and type of work the workers will perform [OHSA s. 25(2)(a)]
- ensure equipment operators and signallers are competent workers [O. Reg. 213/91 s. 96 and 106]
- take every precaution reasonable in the circumstances for the protection of workers [OHSA s. 25(2)(h)]
- ensure prescribed measures and procedures are carried out in the workplace [OHSA s. 25(1)(c)]
- ensure equipment, materials and protective devices required by the regulations are provided and maintained in good condition [OHSA s. 25(1)(a) and (b)]
- provide assistance to, and co-operate with, the workplace's Joint Health and Safety Committee and/or a health and safety representative [OHSA s. 9(29) and 8(9)]
- prepare and review, at least annually, a written occupational health and safety policy for the workplace, and develop and maintain a program to implement that policy [OHSA s. 25(2)(j)]
- post a copy of the OHSA in the workplace [OHSA s. 25(2)(i)]

Supervisors

Some examples of supervisors' duties:

- **ensure workers comply with the OHSA and its regulations [OHSA s. 27]**
- **ensure any equipment, protective device or clothing required by the employer is used and/or worn by workers [OHSA s. 27(1)(b)]**
- **advise workers of any potential or actual health or safety dangers known by the supervisor [OHSA s. 27(2)(a)]**
- **where prescribed, provide workers with written instructions about measures and procedures to be taken for workers' protection [OHSA s. 27(2)(b)]**
- **take every precaution reasonable in the circumstances for the protection of workers [OHSA s. 27(2)(c)]**

Workers

Some examples of workers' duties:

- **wear appropriate personal protective equipment [OHSA s. 28(1)(b)]**
- **use or operate equipment in a safe manner [OHSA s. 28(2)(b)]**
- **report any defects in equipment to your supervisor or employer [OHSA s. 28(1)(c)]**
- **work in compliance with the OHSA and its regulations [OHSA s. 28(1)(a)]**
- **report any known workplace hazards or OHSA violations to your supervisor or employer [OHSA s. 28(1)(d)]**
- **know your OHSA rights, including the right to refuse unsafe work [OHSA s. 43(3)(a), (b) and (c)]**

Resources

- **video: trench digging and excavation safety**
- **trenching and excavation fact sheet from the Canadian Centre for Occupational Health and Safety**
- **Infrastructure Health & Safety Association resources:**
 - **trenching and excavation topic page**
 - **excavation section of Your Guide to Construction Health and Safety Information**

More information

- **Construction Safety**

- [Infrastructure Health and Safety Association](#)
- [Workplace Safety and Insurance Board](#)
- [Ontario Sewer and Watermain Contractors Association](#)
- [Operating Engineers Training Institute of Ontario](#)
- Canadian Standards Association (CSA): View CSA standards referenced in OHS regulations. Join “[\(CSA\) Communities](#)” for free access

Call toll-free

Call 1-877-202-0008 any time to report critical injuries, fatalities or work refusals. Call 8:30 a.m. to 5 p.m. Monday to Friday for general inquiries about workplace health and safety.

Always call 911 in an emergency.

Alert: Falling Ice on Construction Projects

- Issued: April 4, 2016
- Content last reviewed: February 2019

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer.

In 2016, a worker in Ontario succumbed to injuries after being struck by ice that fell from an excavation wall.

Hazard

At a construction project, overhead ice can accumulate on different surfaces such as the roof of a residential or commercial building, or an excavation wall, or even formwork. Large icicles can form on eaves, window frames or gutters. The accumulation of ice overhead represents a significant hazard to workers if not removed in a timely way.

Ice can accumulate after a weather event, such as an ice storm, or when the temperature conditions are suitable for the freezing of water that has accumulated on the surface of a structure or object. Ice also develops when the heat from one surface partly melts the ice or snow; the water then attaches to that surface and freezes again, which creates a layer of ice in a relatively short period of time. Icicle formation is more common (and dangerous) in milder winter weather conditions, when the sun warms the area enough to melt the ice during the day but gives way to freezing temperatures at night.

While ice falling long distances can be fatal, ice doesn't have to fall from tall structures in order to cause damage. Icicles detaching from two-storey homes or lower levels of a multi-storey apartment or office buildings can often be enough to cause lacerations, head injuries, broken bones, and even death in rare cases. In addition, dripping water from melting icicles may pool on the ground below and refreeze, creating a serious slip-and-fall hazard.

Purpose

This alert is intended to increase awareness about the safety requirements under the Construction Projects Regulation, O. Reg. 213/91. It is intended to help constructors, employers, supervisors and workers be aware of the potential hazards associated with falling ice at a construction project and ensure that the necessary precautions are taken to prevent workers from being exposed to the associated dangers.

Protective measures

Obligations under the Occupational Health and Safety Act and the Construction Projects Regulation

It is the responsibility of the constructor, the employer and the supervisor to ensure that all of the sections of the Regulation for Construction Projects are complied with on a project under construction during wintertime conditions. Special attention must be paid to the accumulation of ice both as a slip hazard for workers and when it is present as an overhead hazard.

- Section 232 (1) of O. Reg. 213/91 states “the walls of an excavation shall be stripped of loose rock or other material that may slide, roll or fall upon a worker.”

The above section would include accumulations of ice that might form on trench walls or on the shoring system during the wintertime.

The following O. Reg. 213/91 sections may also apply in varying degrees:

- Section 14 (3) requires a supervisor to “inspect all [...] buildings and other structures, temporary supports and means of access and egress at the project to ensure that they do not endanger any worker.”
- Section 34 (1) states “if material may fall on a worker, overhead protection shall be provided, (a) at every means of access to and egress from a building or other structure under construction; and (b) above every area where work is being carried out.”
- Section 72 states “a work area, a route to and from a work area and a scaffold platform on which work is being performed shall be

maintained at all times in a condition that does not endanger workers and, without limiting the generality of the foregoing, (a) shall be kept clear of obstructions; (b) shall be kept clear of snow, ice or other slippery material; [...]"

For more information

Infrastructure Health and Safety Association

Contact the Ministry of Labour Health & Safety Contact Centre at 1-877-202-0008.

This is not a comment on any situation currently under investigation.

Remember that while complying with occupational health and safety laws, you are also required to comply with applicable environmental laws.

Permission is granted to photocopy Ministry of Labour alerts. Please distribute them widely and post them where people will see them.

On this page

- 1. Overview**
- 2. Causes of heat stress**
- 3. Illnesses due to heat stress**
- 4. Ways to manage heat stress in the workplace**
- 5. Creating a heat stress plan**

Overview

Working when it's hot puts stress on your body's cooling system. When ignored, it can lead to heat-related illness, disability and even death. This can happen to anybody.

Heat stress can get worse when combined with:

- physical work**
- loss of fluids**
- fatigue**
- a pre-existing medical condition**

Causes of heat stress

Factors that can cause heat stress include:

- working in direct sunlight in the summer months**

- **humidity in the workplace (more than 50% relative humidity)**
- **working in certain workplaces such as foundries, smelters, chemical plants, bakeries and commercial kitchens**
- **working in mines, especially deep mines with geothermal gradients**
- **working in mines with equipment that radiates heat**

Illnesses due to heat stress

Heat rash

Heat cramps

Fainting

Heat exhaustion

Heat stroke

Heat rash

Red bumps on skin with severe itching caused by hot humid environments and plugged sweat glands.

Treatment

Change into dry clothes and avoid hot environments. Rinse your skin with cool water.

Prevention

Wash regularly to keep skin clean and dry.

Heat cramps

Muscle pain in overworked areas such as arms, legs or stomach caused by a salt imbalance from heavy sweating. This can happen at work or later at home.

Treatment

You should:

- **not take salt tablets**
- **move to a cool area**
- **loosen clothing**

- **gently massage and stretch affected muscles**
- **drink cool, slightly salted water or a beverage with electrolytes**

If the cramps are severe or don't go away after drinking salt water or a beverage with electrolytes, get medical help right away.

Prevention

You should:

- **reduce activity levels**
- **reduce heat exposure**
- **drink fluids regularly**
- **check on your coworker(s) for any irregular behaviour**

Fainting

Caused by fluid loss and not enough water intake. Before losing consciousness, you may not experience any warning symptoms but if you do, the common signs are:

- **cool, moist skin**
- **weak pulse**

Treatment

You should:

- **get medical attention**
- **move to a cool area**
- **loosen clothing**
- **lie down**
- **if awake, sip some cool water**

Prevention

You should:

- **reduce activity levels**
- **reduce heat exposure**
- **drink fluids regularly**

- **check on your coworker(s) for any irregular behaviour**
- **avoid standing in one place for too long**

Heat exhaustion

Caused by the breakdown of your body's cooling system. Symptoms can include:

- **heavy sweating**
- **cool, moist skin**
- **body temperature above 38°C**
- **weak pulse**
- **low blood pressure**
- **tired and weak**
- **nausea and vomiting**
- **very thirsty**
- **panting or breathing rapidly**
- **blurred vision**

Treatment

Do not leave the person alone and:

- **get medical attention**
- **move to a cool area**
- **loosen or remove clothing**
- **drink and spray cool water**

Prevention

You should:

- **reduce activity levels**
- **reduce heat exposure**
- **drink fluids regularly**
- **check on your coworker(s) for any irregular behaviour**

Heat stroke

Heat stroke is caused by the breakdown of your body's cooling system and has a high risk of irreversible damage to body organs and organ systems. Some people with heat stroke lose the ability to sweat and are not very

physically active when ill (classic heat stroke), while others experience heat stroke while still sweating and active (exertional heat stroke).

Symptoms include:

- **high body temperature (above 40°C)**
- **a fast pulse**
- **headache or dizziness**
- **passing out**
- **weakness, confusion or acting strangely**
- **hot, dry, red skin (classic heat stroke) or profusely sweating (exertional heat stroke)**

Treatment

You should:

- **call an ambulance**
- **remove excess clothing**
- **drink and spray cool water**

Prevention

You should:

- **reduce activity levels**
- **reduce heat exposure**
- **drink fluids regularly**
- **check on your coworker(s) for any irregular behaviour**

Ways to manage heat stress in the workplace

Under the *Occupational Health and Safety Act*, you must take every reasonable precaution in the circumstances for the protection of a worker. This may include protecting your workers from heat stress. You can do this in several ways:

Design your workplace to reduce heat stress

If possible, start with engineering controls. For example:

- **use machines (for example, hoists and lift-tables) to reduce the physical demands of work**

- control the heat at its source by using insulating and reflective barriers (for example, insulate furnace walls)
- exhaust hot air and steam produced by operations
- use air conditioners to reduce the temperature and humidity
- use fans if the temperature is below 35°C (if fans are used when the temperature is above 35°C they may recirculate the hot air, which can prevent cooling)
- provide:
 - cool, shaded work areas
 - air-conditioned rest areas

Plan ahead to reduce heat stress

Your workplace policies and procedures, schedule and training can help reduce the risk of heat stress. Administrative and work practice controls can include:

- assessing the demands of all jobs and putting a plan in place for hot days and workplaces
- increasing the frequency and length of rest breaks
- scheduling strenuous jobs to cooler times of the day such as in the early morning, late afternoon or night
- providing cool drinking water near workers
- reminding workers to drink a cup of water at least every 15 to 20 minutes to stay hydrated
- cautioning workers to avoid direct sunlight
- assigning more workers or slowing down the pace of work
- making sure workers have time to acclimatize to a modified intensity of work
- training workers to recognize the signs and symptoms of heat stress
- starting a “buddy system” because people are not likely to notice their own symptoms
- investigating any heat-related incidents reported by workers
- making sure workers trained in First Aid are available and on-site
- creating an emergency response plan to respond to heat-related illnesses
- advising workers who are pregnant or have a medical condition to consult their physician about working in the heat and make appropriate accommodations

Help workers adjust to hot environments

The more time a worker has to acclimatize to a hot environment, the better their body handles the heat.

If workers have health problems or are not in good physical shape, they may need more time to adjust to hot environments.

For workers with no experience in hot conditions, there are two ways to help them tolerate the heat:

- 1. gradually increase the activity level over one to two weeks**
- 2. gradually increase the amount of time spent in hot working conditions**

For workers with experience in hot conditions, but who may have been ill or away from work for 9 or more days, the worker will need to gradually readjust to the heat.

You can find more information on heat acclimatization from The National Institute for Occupational Safety and Health: [Heat Stress – Recommendations](#).

Encourage workers to wear suitable protective clothing

Workers should:

- wear light and breathable summer clothing (if applicable)**
- cover their head to prevent exposure to direct sunlight**
- wear reflective clothing in a high radiant-heat situation**
- consider air, water or ice-cooled insulated clothing for very hot environments**
- avoid clothing that isn't breathable, such as chemical protective clothing. If the workers must wear it, they should pay close attention to symptoms that suggest they may be ill due to heat stress.**

Supervisors should be constantly monitoring workers for signs that could suggest a risk of illness due to heat stress.

Creating a heat stress plan

We recommend employers create a heat stress control plan, based on the work environment.

Process heat

For workplaces that are hot primarily due to process heat (for example, furnaces, bakeries and smelters), we recommend employers:

- follow the guidance in the American Conference of Governmental Industrial Hygienists (ACGIH) booklet, Threshold Limit Value (TLVs)
- set up a heat stress control plan in consultation with the workplace's joint health and safety committee or worker health and safety representative

Hot weather

A hot weather plan is a simplified heat stress control plan.

Employers should create one to use between May 1 and September 30 of each year.

Consider using the plan when:

- the humidex on-site reaches or exceeds 35
- Environment Canada reports air temperature that exceeds 30°C and a humidex of 40
- heat waves of 32°C or more are predicted for three or more days
- the Ontario Ministry of the Environment, Conservation and Parks issues a smog alert

This resource does not replace the Occupational Health and Safety Act (OHSA) and its regulations, and should not be used as or considered legal advice. Health and safety inspectors apply the law based on the facts in the workplace.

Alert: Horizontal handling of steel plates

Learn about the suggested precautions when hoisting and rigging steel plates.

On this page

1. [Background](#)
2. [Hazard summary](#)
3. [Locations and sectors](#)
4. [Precautions](#)
5. [Applicable legislation and pertinent standards](#)
6. [Resources](#)

Background

On May 21, 2013, a new worker was fatally injured when the steel plate that he was moving horizontally with an overhead crane and plate hooks

suddenly slipped off the hooks and fell onto the worker. It was the worker's third week on the job and first day doing this specific task. The inch-thick hardened steel plate being moved was eight feet wide, 24 feet long, and weighed 3,556 kg. The plate was being removed from a stack of plates to an adjacent cutting table.

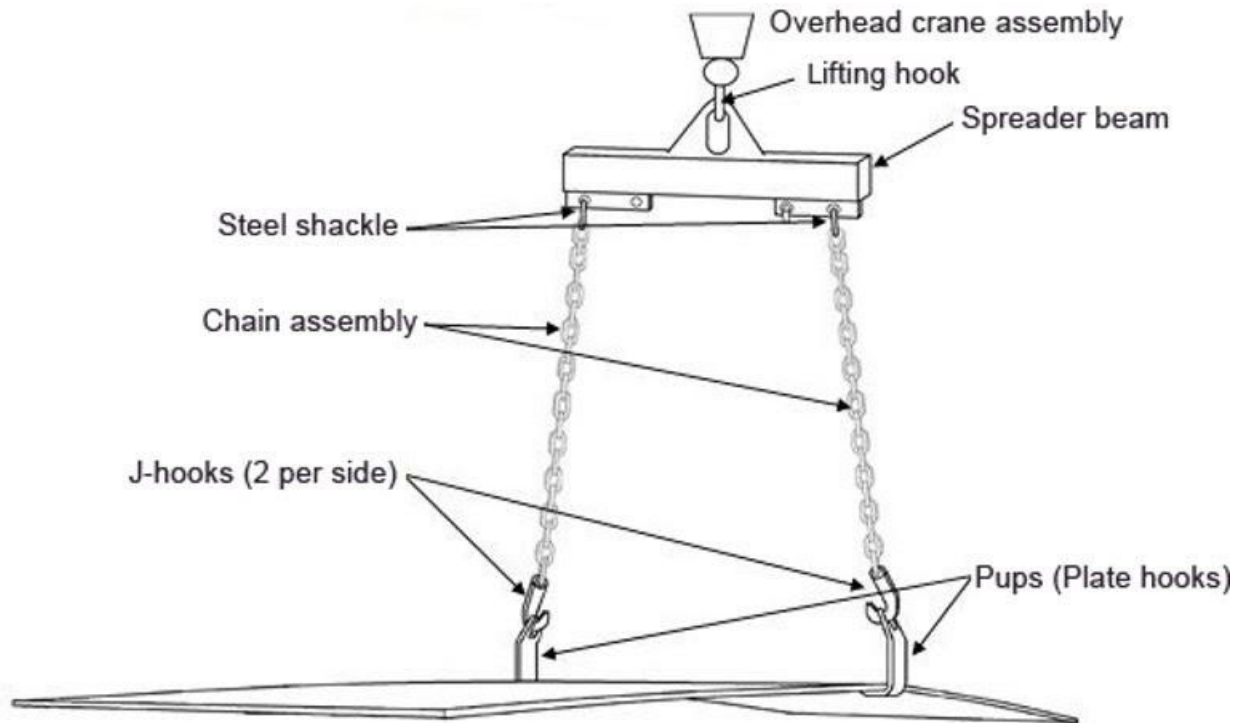


Figure 1: Lifting arrangement for 1" steel plate

The plate was being lifted and moved with a pair of pup hooks (also known as plate hooks), each attached with two hooks and two chains secured to a spreader beam hooked to the crane (see photo above).

As the plate was being maneuvered, the plate hooks slipped off the plate. The plate then fell onto the worker, injuring the worker fatally.

Steel plates must never be hoisted in this manner because the material may fall as a result of the hooks being dislodged if the plate unexpectedly shifts because of an unbalanced load or an accidental slackening of the hoisting chains.

Hazard summary

Improper design, use and maintenance of hoisting and rigging equipment can cause the equipment to fail or the material to fall, potentially injuring or killing a worker.

Locations and sectors

This Alert applies to any sectors that lift and/or handle materials using lifting devices, including but not limited to fabrication, automotive, construction, industrial services, live entertainment, and the steel industry.

Precautions

Employers must develop proper procedures for handling different materials in their workplace, including proper hoisting and rigging procedures.

Employers must ensure that appropriate equipment is provided and maintained for the specific material being handled.

Employers must ensure that workers are adequately instructed, trained and supervised in the operation of lifting devices and proper hoisting and rigging procedures specific to the material being handled.

Employers must ensure that all hooks, clamps, fittings or attachments used in conjunction with chains, cables or wire ropes attached to the crane or spreader bar are properly and positively secured to the material being moved. The hooks, clamps, fittings or attachments must not be able to be dislodged:

- if the plate inadvertently makes contact with the floor, other object or any other surface**
- if any object strikes the chains**
- by any sudden movement of the hook or attachment or**
- by the accidental slackening of the hoisting chains, cables or ropes**

The use of "positive engagement clamps" (i.e. secured in place so they cannot be dislodged due to accidental contact or slackening of the chain) is one way to ensure that clamps are properly secured to the material at all times.

The material must not be able to slide out of the hooks or clamps if the material shifts for any reason.

The employer should ensure that the manufacturer's specifications are followed including use, maintenance and limitations. The clamps used

should be appropriate for the lifting tasks to ensure the lift can be done safely.

Applicable legislation and pertinent standards

This resource does not replace the Occupational Health and Safety Act (OHSA) and its regulations, and should not be used as or considered legal advice. Health and safety inspectors apply the law based on the facts in the workplace.

Sections 25 to 28 of the Occupational Health and Safety Act set out the roles and responsibilities of employers, supervisors and workers to protect the health and safety of workers. These requirements apply to all activities in the workplace, including when material is being hoisted and/or moved by a lifting or rigging device.

The following sector-specific regulations under the OHSA prescribe requirements for lifting devices and hoisting and rigging equipment.

Industrial Establishments Regulation (Reg. 851/90)

- **Section 45: Material, articles, or things shall be lifted, carried, moved, transported, placed, stored or removed in a manner that will not endanger the safety of any worker.**
- **Section 51 (1)(a): Lifting devices shall be constructed of such strength and equipped with suitable ropes, chains, slings, and other fittings to adequately ensure the safety of workers.**
- **Section 51 (2)(a): Lifting devices must be operated by a competent person or a worker being instructed who is accompanied by a competent person.**
- **Section 51 (2)(b): No load to pass over any workers, and one or more guide ropes to be used to prevent rotation or other uncontrolled motion of the load.**

Construction Projects Regulation (O. Reg. 231/91)

- **Section 37: Materials or equipment at a project shall be stored and moved in a manner that does not endanger a worker.**
- **Section 38: Blocking, support chains, metal bands, wire rope and rigging components shall be removed from material or equipment in a manner that does not endanger a worker.**
- **Section 113: No object or material shall be placed, left or stored in a location or manner that may endanger a worker.**
- **Section 150: No worker shall operate a crane or similar hoisting device unless the worker holds a certificate of qualification issued under the Ontario College of Trades and Apprenticeship Act, 2009, that is not suspended, or the worker is an apprentice and is working pursuant to a**

training agreement registered under that Act, that is not suspended, in the trade of;

- a. hoisting engineer – mobile crane operator 1, if the worker is operating a crane or similar hoisting device capable of raising, lowering or moving any material that weighs more than 30,000 pounds;
- a. hoisting engineer – mobile crane operator 1 or hoisting engineer — mobile crane operator 2, if the worker is operating a crane or similar hoisting device capable of raising, lowering or moving only material that weighs more than 16,000 pounds but no more than 30,000 pounds; or
- b. hoisting engineer – tower crane operator, if the worker is operating a tower crane.
- Section 172: (1) A container, sling or similar device for rigging or hoisting an object, including its fittings and attachments;
 - a. shall be suitable for its intended use;
 - a. shall be suitable for and capable of supporting the object being rigged or hoisted;
 - b. shall be so arranged as to prevent the object or any part of the object from slipping or falling;
 - c. shall be capable of supporting at least five times the maximum load to which it may be subjected; and
 - d. shall be capable of supporting at least ten times the load to which it may be subjected if it is to be used to support a person.
- 0. A sling or similar device made of web-type fabric or nylon shall be labeled to indicate its load rating capacity.
- 0. No sling or similar device for rigging or hoisting made of web-type fabric or nylon shall be used if it may be cut.
 - Section 178: A friction-type clamp used in hoisting materials shall be constructed so that an accidental slackening of the hoisting cable does not release the clamp.
 - Section 179: (1) If a worker may be endangered by the rotation or uncontrolled motion of a load being hoisted by a crane or similar hoisting device, one or more guide ropes or tag lines shall be used to prevent the rotation or uncontrolled motion.
- 0. No guide rope or tag line shall be removed from a load referred to in subsection (1) until the load is landed and there is no danger of it tipping, collapsing or rolling.

Resources

IHSA Hoisting and rigging safety manual
ASME B30.20, below-the-hook lifting devices
Workplace safety and prevention services

Ontario.ca e-Laws

**Or contact the Ministry of Labour Health & Safety Contact Centre at
1-877-202-0008.**

Alert: Loading Limitations of Utility Service Covers in Public Sidewalks and Other Non-Roadway Areas

- Issued: July 7, 2015
- Content last reviewed: July 2015

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer.

Recently in Ontario a worker died and another was critically injured while operating a mobile elevated work platform over a utility service cover that was on top of a telephone company cable vault embedded in concrete below a public sidewalk. The utility service cover broke under the weight of the equipment, destabilizing the elevated platform and causing it to tip over.

Hazard

Utility owners may use similar cable vaults for different applications; only the grade of the service cover that goes on top of the vault changes, based on where the vault is embedded. Utility vaults located underground, in grass surrounds or designated walkways where there is no deliberate vehicle traffic, may use “light duty” service covers designed for green belt application. These covers are rated at 907 kilograms (kg) or 2,000 pounds (lbs) and categorized for pedestrian use only.

Utility vaults that are located anywhere in a sidewalk where vehicular traffic is limited to class 7 vehicles (3,060 kg or 2.5 ton truck) require a heavy duty cover with at least a tier 22 grade and designed to withstand a maximum applied load of 9,979 kg or 22,000 lbs.

NOTE: To avoid equipment or machinery tip-over hazards caused by utility covers that are broken or deformed by excessive loads, always refer to the equipment/machinery operator’s manual to determine the weight of the equipment/machinery and corresponding accessories or attachments. Be sure that they do not exceed the design load limitations of any utility covers in the work area. A mobile elevating work platform with the boom extended to a maximum reach of 24 metres (m) or 80 feet (ft) can weigh over 16,782 kg or 37,000 lbs. A single wheel can produce a point load of over 9,979 kg or 22,000

lbs. Employers must inspect utility service covers in the work area and ensure they are capable of supporting all loads, or that they are adequately covered with a covering capable of supporting all loads expected to be applied to them, including mobile equipment or machinery.



Utility service cover that has been damaged.

Purpose

This alert is intended to increase awareness about the safety requirements under the Construction Projects Regulation, O. Reg. 213/91. It is intended to help employers and municipalities be aware of the potential hazards associated with utility service covers installed on public rights of way which may not be strong enough to support vehicles and equipment.

Municipalities and contractors using heavy equipment like scissor lifts and boom trucks while doing work on public rights of way, including sidewalks, should be aware of the strength limitations of utility service covers in the work area. The necessary precautions should be taken to prevent workers from being exposed to the dangers associated with working on a surface that cannot support the load applied to it.

Protective measures

Obligations under the Occupational Health and Safety Act and the Construction Projects Regulation

Employers must ensure that existing utility covers are capable of supporting loads they may be subjected to by the work activities taking place and, if necessary, replace an existing utility cover with one of sufficient strength. Alternatively, the utility cover may itself be covered with a material capable of supporting the load without failure.

For more information

- [Infrastructure Health and Safety Association](#)
- [Ministry of Labour Health & Safety Contact Centre](#)
- [Canadian General Standards Board](#)
- [Canadian Standards Association](#)

Permission is granted to photocopy Ministry of Labour alerts. Please distribute them widely and post them where people will see them.

Preventing Infectious Diseases on Construction Projects

- Issued: March 2012
- Content last reviewed: June 2020

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer. Protecting workers is part of the government's commitment to prevent workplace injuries and diseases through its Safe At Work Ontario Strategy.

Construction workers are often at risk from exposure to infectious diseases on construction projects due to poor sanitary conditions associated with toilets and clean-up facilities.

Poor sanitation is a major cause of disease and can be a serious occupational health risk.

Infectious disease prevention and control are to be maintained on construction projects through adequate sanitary conditions and adherence to good hygiene practices.

General duties of workplace parties

Protecting workers from infectious diseases on construction projects

It is the responsibility of all workplace parties including constructors, employers and suppliers to ensure compliance with the provisions of the OHSA and the regulations in order to protect workers from hazards in the workplace including the protection of workers from infectious diseases due to inadequate sanitation on construction projects.

Construction employers have duties under the Occupational Health and Safety Act (OHSA) to ensure that every reasonable precaution in the circumstance is taken for the protection of workers (clause 25(2) (h)) of the OHSA.

Employers must report all occupational diseases to the Ministry of Labour and the workplace's Joint Health and Safety Committee (JHSC) as required by Subsection 52(2) of the OHSA.

Employers are also required, by clause 25(2) (a) of the OHSA, to provide information, instruction and supervision to a worker to protect the health or safety of the worker. This includes, and is not limited to, information and instruction and supervision about infectious diseases and associated hazards and health risks.

Constructors must ensure that, in accordance with section 29 of the Construction Regulation (O. Reg. 213/91), toilets, urinals and clean-up facilities are provided or arranged for workers before work starts at a project and that there is reasonable access to them.

Suppliers have a duty under section 31 of the OHSA, to provide toilets and clean-up facilities that are in good condition and that comply with section 29.1 of the Construction Regulation.

Safe work practices

Constructors

Toilets

- **Provide (or make arrangements for) water flush toilets that are connected to a sanitary sewer, or chemical flush toilets that are not connected to a sanitary sewer.**
- **Ensure that minimum numbers of toilets as prescribed per number of workers regularly employed at the project are provided, and separate facilities for female workers are provided, unless the facilities are intended to be used by only one worker at a time.**
- **Ensure an adequate number of urinals are provided. Subsection 29.1(6) of the Construction Regulation provides the number of urinals that can replace toilets if the facilities are only to be used by males. Ensure that facilities are serviced as often as required. (One week intervals may not be sufficient in warm weather or when larger numbers of workers are present at a project).**

Clean-up facilities

- **Provide an adequate number of clean-up facilities, as prescribed and ensure that they are equipped with wash basins, with both hot and cold running water where reasonably possible, paper towels and receptacle or a hand dryer.**
- **In cases where it is not reasonably possible to provide running water, it is permissible to use hand cleanser that can be used without water, paper towels (and receptacle) or a hand dryer.**

Notes:

- 1. Although this is a fact-specific determination to be made by an inspector at a workplace, it is the position of the Ministry of Labour that clean-up facilities complete with hot and cold water (or ⁽¹⁾warm water) are, as a general matter, reasonable to provide by Constructors in almost all construction projects.**
- 2. Where it is not reasonably possible to have a wash basin with running water at a clean-up facility, the workplace parties, namely the constructor and employer must provide the rationale as to why “it is not reasonably possible”**
- 3. Your attention is drawn to the requirement of s. 30 for washing facilities with clean water, soap and individual towels when workers handle or use corrosive, poisonous or other substances likely to endanger their health, namely cement, vitreous fibers or other controlled products whose material safety data sheet require washing with water and soap after the use of the product.**

Toilet and Clean-up Facilities

- **Ensure that the facilities are adequately heated (if possible), ventilated, illuminated and kept in good condition at all times.**
- **Ensure that facilities are regularly serviced, cleaned and sanitized.**
- **Keep records of when they were serviced, cleaned and sanitized.**

Employers

- **Inform, instruct and supervise workers on proper procedures when using the facilities and the importance of hand washing and sanitary conditions.**
- **Ensure that workers follow proper procedures and report hazards.**
- **Advise workers on the dangers to health and safety and hazards, health risks and infectious diseases associated with poor hand hygiene and poor sanitation of toilet facilities.**

Supervisors

- **Ensure on behalf of their employer that the construction projects have adequate facilities and they are adequately serviced and sanitized**
- **Advise workers on the dangers to health and safety and hazards, health risks and infectious diseases associated with poor hand hygiene and poor sanitation of toilet facilities**

Workers

- **Follow safe practices and good personal hygiene**
- **Report any unsafe condition to their supervisor**

Construction Health & Safety Program (CHSP) and stakeholder engagement

- **There is a renewed commitment among industry stakeholders in our sector to improve sanitary conditions on construction projects and to achieve better compliance with the OHSA and the Construction Regulation.**
- **The Ministry has been working with the Ontario Association of Sewage Industry Services (OASIS) and the Infrastructure Health & Safety Association (IHSA) to educate and inform suppliers and contractors of their respective responsibilities under the OHSA and the Construction Regulation.**

More information

More information about Infectious Diseases and the Enforcement Strategy and Compliance on construction projects can be found at the following links:

Construction site health and safety during COVID-19

Read more about Ontario's *Safe At Work Ontario* strategy to improve workplace safety

Ministry of Labour, Construction Safety

Call toll-free

Call 1-877-202-0008 any time to report critical injuries, fatalities or work refusals. Call 8:30 a.m. 5:00 p.m., Monday-Friday, for general inquiries about workplace health and safety.

⁽¹⁾ **Where electrical power is not available, the use of warm water is permissible in lieu of providing hot and cold running water.**

Prevent Musculoskeletal Disorders (MSDs) at Construction Projects

- Issued: January 2012
- Content last reviewed: January 2012

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer.

Manual materials handling is a common task for workers in many workplaces. Manual handling can expose workers to hazards resulting in musculoskeletal disorders (MSDs).

MSDs are injuries and disorders of the musculoskeletal system. They may be caused or aggravated by various hazards or risk factors in the workplace such as force, fixed or awkward postures, and repetition.

MSDs are the most common workplace injury resulting in over 40 percent of all Workplace Safety & Insurance Board (WSIB) lost-time injuries in Ontario.

Employers are required to protect workers by putting in place controls to prevent hazards.

Preventing MSDs needs to be a key part of every workplace health and safety program. In safe and healthy workplaces, employers:

- Identify and assess job-related MSD hazards;
- Put in place controls to reduce workers' exposure to MSD hazards;
- Advise and train workers about MSD hazards in their job and workplace;
- Encourage workers to participate in their workplace's health and safety program through early reporting of MSD symptoms or concerns to their employer/supervisor; and
- Follow up to ensure preventative measures are working.

Ministry of Labour inspectors take enforcement action, as appropriate, if they find violations of the Occupational Health and Safety Act and its regulations.

Priority areas

Inspectors check for MSD-related hazards, including:

- Unsafe lifting, lowering, pushing, pulling and carrying of materials;
- Obstructions along routes of access and egress and at work locations;
- Poor housekeeping and improper storage of materials;
- Unsafe use of ladders and lack of adequate worker training;
- Poor maintenance of vehicles, machinery, and equipment that could result in increased physical demands, and
- Inappropriate use of equipment (such as boxes being used as platforms) by workers positioning themselves for overhead work.

See the Infrastructure Health and Safety Association for examples of MSD Hazards and Controls profiles in the Construction industry.

More information

Ontario Ministry of Labour, Pains and Strains resources

Occupational Health and Safety Act

View Canadian Standards Association standards referenced in occupational health and safety legislation

Ontario's Health and Safety Associations

Canadian Centre for Occupational Health and Safety (CCOHS) ergonomics page

Call toll-free

Call 1-877-202-0008 any time to report critical injuries, fatalities or work refusals. Call 8:30 a.m.-5:00 p.m., Monday-Friday, for general inquiries about workplace health and safety. Always call 911 in an emergency.

Advisory: Shepherd's Hook

- Issued: June 24, 2008
- Content last reviewed: June 2009



Background

A worker was fatally injured after falling from a power line tower that was being constructed. The worker was wearing a fall protection system that included a retractable life line and safety belt that were attached to a shepherd's hook. (See photograph)

The shepherd's hook fall protection system was intended for use as fall protection while the worker ascended and descended the tower under construction.

It has been determined that the pole's bottom end can catch in objects, such as tool pouches, bolt bags or safety belts, and disengage from where it is anchored. The ability to inadvertently disengage presents a hazard.

The shepherd's hook, involved in the accident, as well as the one depicted in the above photograph, were not equipped with a positive means to ensure that it will not become accidentally or inadvertently disengaged.

Requirements of the Occupational Health and Safety Act on Projects

The Occupational Health and Safety Act requires that an employer ensure the safety of its workers. Section 26 of Ontario Regulation 213/91, The Regulation for Construction Projects, provides that where a worker is exposed to falling more than three metres or is subject to other hazards set out in the regulation, and it is not reasonably possible to install a guardrail system, a worker shall be adequately protected by a method of fall protection set out in the regulation. The regulation also sets out specific requirements for fall protection systems and for the training of the user of the fall protection system.

Stop Use

All workplaces must cease using any type of shepherd's hook that does not have an adequate secondary means of maintaining positive engagement as part of a fall protection system. Shepherd's hooks that may become disengaged from their attachment point without workers intentional actions are unsafe for use in fall protection systems.

Fall protection system components used at a workplace shall be adequate and in compliance with the requirements outlined in the regulation.

An employer shall ensure that a worker who may use a fall protection system is adequately trained in its use, and that the person who provides the training shall prepare a written training and instruction record for each worker and shall sign the record pursuant to Ontario Regulation 213/91.

For further information, contact the Occupational Health and Safety Branch of the Ontario Ministry of Labour at (416) 326-3835; 1-800-268-8013.

Construction Site Traffic Hazards

- Issued: May 2015
- Content last reviewed: May 2015

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Workers can be at risk of hazards when working around vehicles and mobile construction equipment at construction projects. These hazards can result in serious injuries, and even death, to workers.

Incidents can be prevented by ensuring:

- **trained signallers and competent equipment operators are in place, as required**
- **construction projects are planned and organized to eliminate or reduce the reverse operation of vehicles and construction equipment**
- **personal protective equipment (PPE), including high visibility clothing, is worn by workers, as required**

Employers are responsible for protecting workers from hazards arising from the operation of vehicles and mobile construction equipment at construction projects.

Some of the hazards workers could be exposed to include:

- **being struck by or run over by vehicles and mobile construction equipment**
- **being crushed between equipment and other objects**
- **being struck by material moved by construction equipment**

In 2014, six workers died at Ontario construction projects after being struck by a vehicle or mobile construction equipment. Of those, two workers were killed by vehicles they were directing.

Some general duties of workplace parties

Employers

Employers have a number of duties and responsibilities under the Occupational Health and Safety Act (OHSA) and the Regulations for Construction Projects (O. Reg. 213/91).

Below are some examples of employers' duties:

- **provide information, instruction and supervision to workers to protect their health and safety, including on safe work policies and procedures specific to the workplace and type of work the workers will perform [OHSA s.25(2)(a)]**
- **ensure equipment operators and signallers are competent workers [Construction Reg. s.96 and 106]**

- take every precaution reasonable in the circumstances for the protection of workers [OHSA s.25(2)(h)]
- ensure prescribed measures and procedures are carried out in the workplace [OHSA s.25(1)(c)]
- ensure equipment, materials and protective devices required by the regulations are provided and maintained in good condition [OHSA s.25(1)(a) and (b)]
- provide assistance to, and cooperate with, the workplace's Joint Health and Safety Committee and/or a health and safety representative [OHSA s.9(29) and 8(9)]
- prepare and review, at least annually, a written occupational health and safety policy for the workplace, and develop and maintain a program to implement that policy [OHSA s.25(2)(j)]
- post a copy of the OHSA in the workplace [OHSA s.25(2)(k)]

Supervisors

Below are some examples of supervisors' duties:

- ensure workers comply with the OHSA and its regulations
- ensure any equipment, protective devices or clothing required by the employer is used and/or worn by workers [OHSA s.27(1)(a)]
- advise workers of any potential or actual health or safety dangers known by the supervisor [OHSA s.27(2)(a)]
- where prescribed, provide workers with written instructions about measures and procedures to be taken for workers' protection [OHSA s.27(2)(b)]
- take every precaution reasonable in the circumstances for the protection of workers [OHSA s.27(2)(c)]

Workers

Below are some examples of workers' duties:

- wear appropriate personal protective equipment [OHSA s.28(1)(b)]
- use or operate equipment in a safe manner [OHSA s.28(2)(b)]
- report any defects in equipment to your supervisor or employer [OHSA s.28(1)(c)]
- work in compliance with the OHSA and its regulations [OHSA s.28(1)(a)]
- report any known workplace hazards or OHSA violations to your supervisor or employer [OHSA s.28(1)(d)]
- know your OHSA rights, including the right to refuse unsafe work [OHSA s.43(3)(a) to (c)]

Protecting workers

Employers, supervisors and trainers should encourage workers to communicate any questions or concerns they may have about vehicle and mobile equipment hazards. Supervisors or others involved in training workers should be familiar with any health and safety concerns faced by the workers.

More information

- Ontario.ca/SafeAtWorkOntario
- [Guide to the Occupational Health and Safety Act](#)
- [Health & Safety Ontario](#)
- Ontario.ca/ConstructionSafety
- [Infrastructure Health & Safety Association](#)
- [Workplace Safety & Insurance Board](#)
- [Canada Safety Standards \(CSA\)](#)

Call toll-free

Call 1-877-202-0008 any time to report critical injuries, fatalities or work refusals. Call 8:30 a.m. to 5 p.m., Monday-Friday, for general inquiries about workplace health and safety.

Always call 911 in an emergency.

Supervisor Awareness and Accountability

- Issued: August 2012
- Content last reviewed: June 2017
- See also: [Construction](#)

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Supervisors are an employer's representative on a construction project. Their responsibilities include monitoring a project's progress and ensuring workers' health and safety. Supervisors are there to plan the work, oversee its implementation, monitor, assign tasks, identify hazards and address health and safety concerns brought forward by workers to ensure workers' protection. Supervisors are the main vehicle of communication for their employer and for the other employers on a project.

Under the Occupational Health and Safety Act (OHSA), a supervisor is defined as a person who either has charge of a workplace or authority over a worker. The role of a supervisor is defined by responsibility and job function not by title. Any one of the following may be considered supervisors: foreman, lead hand, site superintendent, charge hand, journeyman, trainer, an individual temporarily assigned as an “assistant” who is a competent person.

Some general duties of workplace parties

Constructors, employers and supervisors must comply with the provisions of the Occupational Health and Safety Act (OHSA), and its regulations.

Constructors

Constructors' responsibilities include:

- **ensuring the required measures and procedures are carried out on a project [OHSA Section 23(1)(a)]**
- **ensuring every employer and every worker performing work on a project complies with the OHSA and its regulations [OHSA Section 23(1)(b)]**
- **ensuring the health and safety of workers on the project is protected [OHSA Section 23(1)(c)]**
- **giving a Ministry of Labour (MOL) director notice, in writing, of a project that contains information required by the Regulation for Construction Projects, before commencing work on a project, [OHSA Section 23(2)]**
- **ensuring each prospective contractor and subcontractor has received a copy of any designated substances list before entering into a binding contract for supply of work on a project [OHSA Section 30(4)]**
- **appointing a supervisor for every project at which five or more workers will work at the same time [Construction Reg. Section 14(1)].**

Employers

Employers' responsibilities include:

- **instructing, informing and supervising workers to protect their health and safety [OHSA Section 25(2)(a)]**
- **appointing competent^(u) persons as supervisors [OHSA Section 25(2)(c)]**
- **taking every precaution reasonable in the circumstances for a worker's protection [OHSA Section 25(2)(h)]**
- **preparing and reviewing, at least annually, a written occupational health and safety policy, and developing and maintaining a program to**

- implement that policy if the workplace has six or more regularly employed workers [OHSA Section 25(2)(j)]
- posting a copy of the occupational health and safety policy in the workplace in a spot where workers will most likely see it [OHSA Section 25(2)(k)]
- taking every precaution reasonable in the circumstances for a worker's protection [OHSA Section 25(2)(h)]
- appointing a supervisor if the employer has five or more workers on a project [Construction Reg. Section 15(1)].

Supervisors

Supervisors' responsibilities include:

- ensuring workers work in compliance with required protective devices, measures and procedures [OHSA Section 27(1)(a)]
- ensuring workers use or wear any equipment, protective device or clothing required by the employer [OHSA Section 27(1)(b)]
- advising workers of any potential or actual health or safety danger known by the supervisor [OHSA Section 27(2)(a)]
- providing workers, when required, with written instructions on any measures and procedures to be taken for the workers' protection [OHSA Section 27(2)(b)]
- taking every precaution reasonable in the circumstances for a worker's protection [OHSA Section (2)(c)]
- supervising the work on the project at all times, either personally or by having an assistant who is a competent person do so when the supervisor is unavailable [Construction Reg. Sections 14(2) and 15(2)]
- inspecting or having the supervisor's assistant inspect, at least once a week, all machinery and equipment, including fire extinguishing equipment, magazines (storage for flammables and explosives), electrical installations, communications systems, sanitation and medical facilities, buildings and other structures, temporary supports and means of access and egress at the project to ensure worker safety.

Workers

Workers' duties include:

- wearing appropriate personal protective equipment [OHSA Section 28(1)(b)]
- using/operating equipment in a safe manner [OHSA Section 28(2)(b)]

- reporting any defects in equipment to his/her supervisor or employer [OHSA Section 28(1)(c)]
- working in compliance with OHSA and its regulations [OHSA Section 28(1)(a)]
- reporting any known workplace hazards or OHSA violations to his/her supervisor or employer [OHSA Section 28(1)d)]
- knowing his/her OHSA rights, including the right to refuse unsafe work [OHSA Section 43(3)(a) to (c)].

Protecting workers

It is the responsibility of employers, owners, constructors and supervisors to ensure all workplace parties comply with the OHSA and its regulations.

The employer is required to ensure basic mandatory health and safety awareness training is completed by all supervisors and workers.

For more information on legal responsibilities please see the Occupational Health and Safety Act.

Further information on supervisor duties

- [Regulation for Construction Projects](#)
- [Construction Safety](#)
- [Guide to the Occupational Health and Safety Act](#)
- [Who is a Supervisor?](#)
- [Health and Safety Awareness Training for Workers and Supervisors](#)
- [Supervising Young Workers](#)
- [Infrastructure Health & Safety Association](#)
- [Health and Safety Partners](#)
- [Workplace Safety and Insurance Board](#)

Ministry of Labour Health & Safety Contact Centre

Call toll-free 1-877-202-0008 anytime to report workplace health and safety incidents. Call 8:30 a.m. to 5 p.m., Monday to Friday, for general inquiries about workplace health and safety. (Information in many languages on request.).

Always call 911 in an emergency.

▣ **Competent means a person is qualified because of knowledge, training and experience to organize the work and its performance, familiar with the OHSA and its regulations that apply to the work, and has knowledge of any potential or actual danger to health or safety of the workplace.**

Alert: Temporary Aluminum Guard Rail Post Assembly

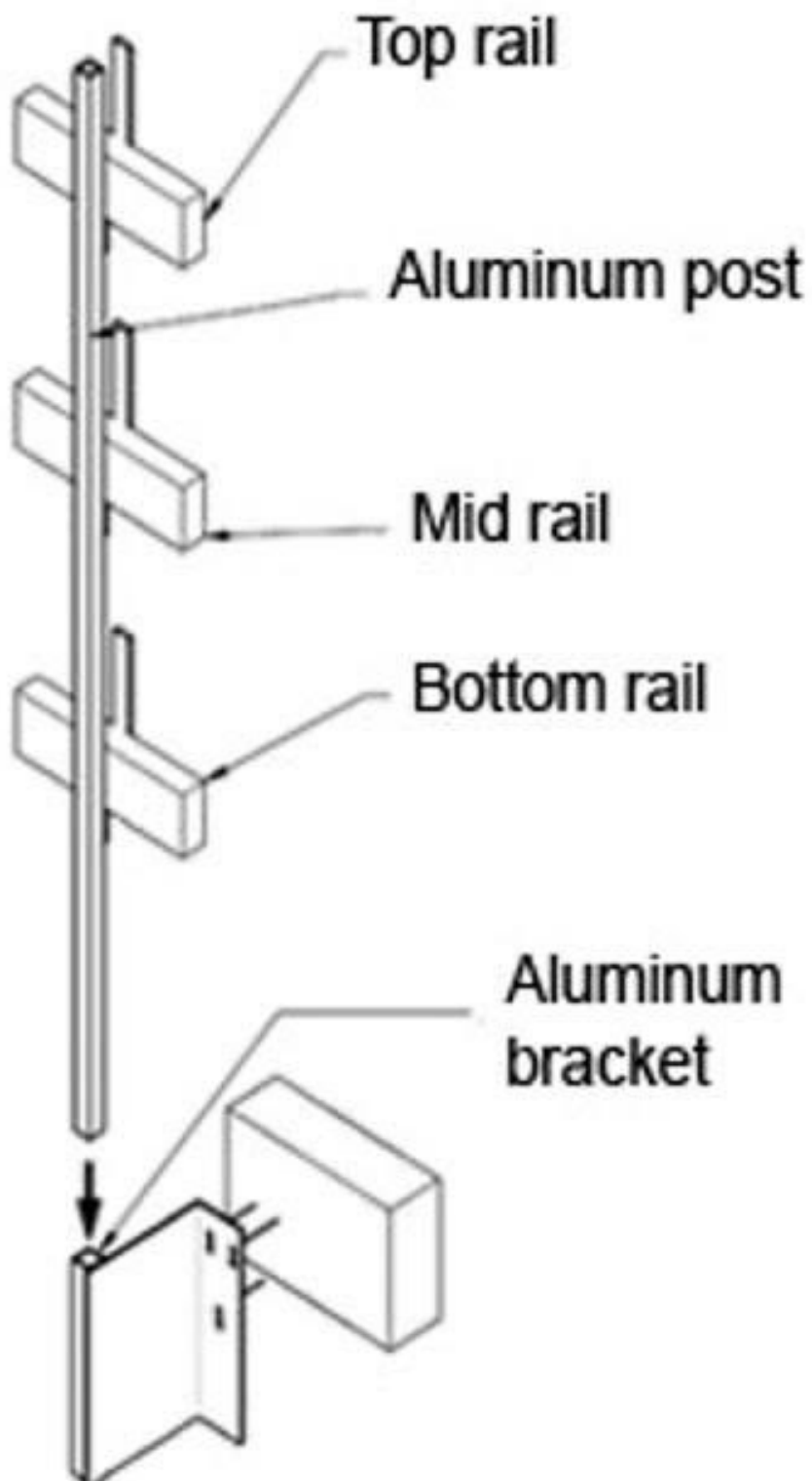
- Issued: November 24, 2015
- Content last reviewed: November 2015

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer. Ministry of Labour (MOL) personnel have encountered prefabricated aluminum guardrail post assemblies being used incorrectly as fall protection on construction sites. The assembly consists of a post with brackets for horizontal rails (top, intermediate and toe board) inserted into a base assembly which is itself attached to an existing structural member or work surface. A worker was fatally injured by a fall when this type of guardrail failed to protect the worker due to poor installation of the bracket to the work surface.

Figure 1: Improperly installed aluminum guard rails



Figure 2: Aluminum guardrail post assembly



Hazard

The type of vertical hollow structural section (HSS) aluminum guardrail post and base assembly depicted may not be adequate to support the loads specified in subsection 26.3(5) of Ontario Regulation 213/91 (the Construction Projects Regulation). MOL personnel have encountered these guardrail systems being used on projects without any engineering drawings to indicate the limitations of the system and the maximum loads and load configuration for which the system was designed. Furthermore, there are sometimes no manufacturer's instructions/documentation for installation requirements, installation procedures and method of securement and strength requirements of the member and structure to which it is ultimately attached. The employer should be able to provide documentation that the guardrail complies with the load requirements outlined in section 26.3(5) of the Construction Regulation.

Method of installation

MOL personnel have observed installation of this guardrail system that is not in compliance with the construction regulation including the following:

- The toe board for this system has been spaced approximately 170 mm from the outside edge of the work surface, which is not in compliance with subsection 26.3(4), paragraphs 4.1 and 5, see figure 1. The legislation stipulates that the distance of the toe board shall not be greater than 300 mm from the inner edge of the work surface (not the outer edge where the post would be positioned beyond the edge of the work surface) and that it shall extend from the surface to which the guardrail system is attached to a height of at least 89 mm.
- The vertical guard rail posts are inserted into the base brackets, so that the rail brackets face away from the work area.
- The fasteners may pull through worn holes in the mounting bracket if the fastener heads are too small for the bracket's worn holes. This allows the bracket to detach from the work surface while the fasteners remain embedded in the supporting structure. As per section 25 (1)(b) of the Occupational Health and Safety Act, the employer shall ensure that the equipment, materials and protective devices provided by the employer are maintained in good condition.

For the purposes of checking if the vertical aluminum post was strong enough to withstand the specified forces outlined in subsection 26.3(5), the capacity of an aluminum post assembly was calculated, and it was determined that the posts assembly may not be adequate to support the loads specified in subsection 26.3(5) of Ontario Regulation 213/91.

Required action

Recommended when procuring a new/used guardrail system

- **Make sure the guardrail system is supported by manufacturer's instructions/documentation on how to install the system, including the anchoring requirements i.e., what base material and fasteners should be used.**
- **Ensure that the manufacturer's instructions/documentation provide details of the system's limitations, and loads for which the system was designed or reference that the system complies with the prescribed requirements in subsection 26.3(5) of Ontario Regulation 213/91. Other details, such as size and type of fasteners to be used, supporting member dimensional requirements, welds, member sizes and material description, should be included in the manufacturer's documentation.**

Recommended steps during installation of the guardrail post

- **Check that the system has the dimensions required in subsection 26.3(4) of the Construction Regulation.**
- **Check whether the aluminum components appear worn or damaged (bent posts, elongated or enlarged fastener holes, bent rail brackets, cracked welds, etc.).**
- **Check that the posts are properly installed in accordance with the manufacturer's instructions. Check that there are no gaps between the edge of the working surface and the guardrail.**
- **If there are no manufacturer's instructions/documentation to review, or if there are serious concerns regarding the ability of the system to safeguard workers, either do not purchase the system, or obtain the advice of a professional engineer that the system meets the prescribed requirements in subsection 26.3(5) of Ontario Regulation 213/91.**
- **Ensure that the system is installed strictly according to the manufacturer's instructions or the engineer's instructions.**

For more information

Call our Health and Safety Contact Centre toll-free at 1-877-202-0008 or visit:

- **[Infrastructure Health and Safety Association](#)**
- **[Local Ministry of Labour office](#)**
- **[Ontario.ca e-Laws](#)**

Permission is granted to photocopy Ministry of Labour alerts. Please distribute them widely and post them where people will see them.

- Issued: April 30, 2014
- Content last reviewed: April 2014

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer. The Ministry of Labour enforces the Occupational Health and Safety Act (OHSA) and its regulations. This includes, enforcing the general requirement that employers provide instruction to a worker to protect the health and safety of the worker [see clause 25(2)(a) of the OHSA].

Section 265 of O. Reg. 213/91 Regulation for Construction Projects sets out requirements for the rescue of tunnel workers. Subsection 265(1) of the Regulation requires that a specified number of workers at a project be trained to perform underground rescue. Subsection 265(3) requires that those rescue workers be trained by a competent person appointed by a Director of the Ministry of Labour.

To be eligible for an appointment as a tunnel rescue trainer under subsection 265(3), an applicant must successfully complete a comprehensive application process, and in doing so demonstrate competency to deliver the training. This process consists of a formal application which is scored through a competency matrix, an interview including a presentation, as well as meeting conditions of appointment described in the next paragraph.

To apply to become appointed as a tunnel rescue trainer applicants must display competency in training, show current or recent activity in the tunneling sector; and must submit a cover letter to the Director of the Occupational Health and Safety Branch (OHSB) and a detailed outline of relevant experience, as described below. The applicant may choose to submit letters of reference from industry professionals.

The relevant experience outline for each applicant must include, but is not limited to, relevant work, training/certifications, and academic experience. Applicants will be assessed for:

- knowledge and experience in underground and tunneling operations
- experience and certification as a trainer
- knowledge and experience with self-rescuer breathing apparatus and self-contained breathing apparatus
- valid first aid/cardiopulmonary resuscitation (CPR) certification, first aid/CPR trainer certification
- knowledge and experience in tunnel and underground rescue procedures

- knowledge and experience in the applicable health and safety legislative requirements
- underground air/gas monitoring

Qualified applicants will be required to undergo a formal interview in which they must demonstrate presentation skills. Reference checks are mandatory before the OHSB Director issues any appointment letter.

Applicants will be notified of the progress of their application through each stage of the process.

Appointments are valid for three years and can be revoked at any time by the OHSB Director if an appointee no longer qualifies to provide tunnel rescue training. For example, an appointment may be revoked if an appointee leaves the industry and begins work in an unrelated field.

Alert: Unguarded Rotating Trolley Track Hoist Drums

- Issued: November 9, 2015
- Content last reviewed: November 2015

Workers have been injured while operating portable trolley track hoists. Typically, these hoists are equipped with guards over the drive belt and brake components of the hoist, but are not guarded or fenced to prevent a worker from accessing either the rotating hoist drum or the pinch point between the drum and the cable.

This hazard alert is intended to help workplace parties, including manufacturers and suppliers, be aware of the drawing-in (in-running pinch point) hazard on trolley track hoists that do not have a fixed guard or barrier to prevent a worker from exposure to either the rotating hoist drum or the pinch point between the drum and the cable.

Trolley track hoist



Side view of trolley track hoist



Hazard summary

Drawing-in hazards (also called in-running nip, or in-running pinch point) are created between two counter rotation objects, a rotating object and a stationary object or material wrapping around a rotating cylinder. With trolley track hoists, the drawing-in hazard is created by the cable wrapping around the hoist drum. The pinch point is considered the point where the cable contacts the drum. Usually this means the operator's fingers can be pinched between the cable and the hoist drum as the cable wraps around the drum.

As required by the Construction Regulation (Construction Projects, O. Reg 213/91) "Every gear, pulley, belt, chain, shaft, flywheel, saw and other mechanically-operated part of a machine to which a worker has access shall be guarded or fenced so that it will not endanger a worker" [section 109].

Hoist drum – spool on the hoist onto which the cable is wound



The Occupational Health and Safety Act, requires employers to acquaint a worker or a person in authority over a worker with any hazard in the work and in the handling and use of any equipment [Section 25(2)(d)]. Therefore, employers must identify the drawing-in hazard to workers or a person in authority over the workers. Pursuant to section 109 of the Construction Regulation, an employer must guard or fence the hoist to prevent workers from coming into contact with the cable as it is wrapping around the hoist drum. In these situations, guards are used to prevent workers being exposed to hazards from moving parts on machines.

Protective measures

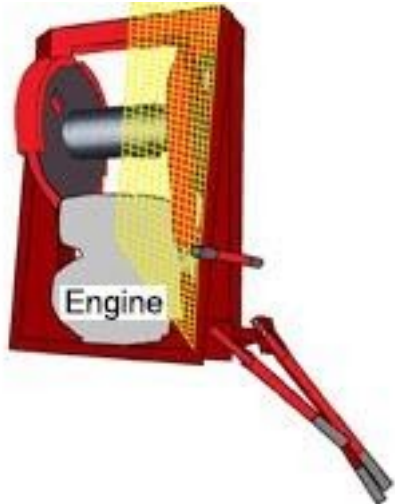
In the case of the trolley track hoist, the operator can be protected from the drawing-in hazard between the cable and the reel using one or more of the methods that follow. The examples below may not be applicable in all circumstances. For example, methods 2 and 3 protect only the operator, not other workers who may be working in the vicinity of the hoist and could be exposed to the drawing-in hazard. A manufacturer of this type of hoist has stated that unhooking a load requires a second worker in addition to the operator. The operator releases the brake while the second worker slackens the hoist cable. If there are workers exposed to this hazard other than the operator, a guard or fence protecting all the workers is required by section 109 of the Construction Regulation.

Method 1: Guard the hazard area in front of the reel – fixed guard example



A fixed guard attached to the front of the reel can prevent the operator from placing his or her hand close to the hazard and other workers from being drawn in to the pinch point. A fixed guard cannot be removed without tools. (This is an example; the size is not to scale.)

Method 2: Barrier on the power pack – only applicable if the operator is the only worker exposed to the hazard



A fixed guard attached to the front of the reel can prevent the operator from placing his or her hand close to the hazard. A fixed guard cannot be removed without tools. (This is an example; the size is not to scale.)

Method 3: Two-hand control – only applicable if the operator is the only worker exposed to the hazard



Normally, to raise a load the operator pulls up on the clutch lever, which in turn lifts the brake lever; only one hand is required to drive the reel. The left hand is normally on the stabilizer to keep the power pack from swinging. The controls could be designed such that the drive is activated with two levers simultaneously, forcing the operator to have two hands on the controls. This type of safeguard only protects the operator.

Two hands must be used to drive the reel to raise a load.

For more information

Call our Health and Safety Contact Centre toll-free at 1-877-202-0008 or visit:

- [Infrastructure Health and Safety Association](#)
- [Ontario.ca e-Laws](#)

Access Equipment:

Alert: Elevating work platform crushing hazard

Learn about the suggested precautions when operating elevating work platforms.

On this page

1. [Hazard summary](#)
2. [Location and sectors](#)
3. [Regulatory requirement](#)
4. [Identified hazard](#)
5. [Required action](#)

6. For more information

Hazard summary

Recent incidents investigated by the Ontario Ministry of Labour, Training and Skills Development involved workers on an elevating work platform being trapped or crushed between the work platform or basket and an obstruction like the ceiling or a beam. Some incidents occurred as a result of workers not being aware of their proximity to these hazards or control functions being inadvertently actuated by the worker's body while near the hazard.

This resource does not replace the Occupational Health and Safety Act (OHSA) and its regulations, and should not be used as or considered legal advice. Health and safety inspectors apply the law based on the facts in the workplace.

Location and sectors

Workers accessing heights using an elevating work platform at workplaces throughout Ontario.

Regulatory requirement

- Sections 17, 93 and 143-148 of the Regulation for Construction Projects (O. Reg. 213/91)
- Section 51 of the Regulation for Industrial Establishments (Regulation 851)
- Sections 44 and 94 of the Health Care and Residential Facilities (O. Reg. 67/93)

Identified hazard

Workers are at risk of being trapped or crushed when operating elevating work platforms. These incidents have involved the operator or other worker being trapped or crushed against fixtures or other obstacles while accessing their work area, or while working at height. Workers have been injured or killed after being trapped or crushed between the railings or control box and obstructions. The incidents could have been prevented by correct planning and preparation, selection of appropriate machinery and proper use.

All workplace parties are to assess risks of trapping and crushing hazards regarding elevating work platforms at their workplace prior to the operation of the equipment. The key to preventing trapping or crushing accidents must be task, equipment and site-specific risk assessment.

Risk assessment should include factors such as travelling to and from the work area, accessing the work, lighting conditions and working at heights. Elevating work platforms shall be maintained to ensure that the safety factors of the original design are functional, including all controls and safety decals.
Elevating work platform operators are to be trained and familiar with specific equipment and follow the manufacturer's operating instructions.

Required action

- **All workplace parties are to assess risks of trapping or crushing hazards.**
- **Employers and supervisors must take the lead in identifying when trapping or crushing risks are present in the work activities they control. Where trapping or crushing risks are present, extra care is needed and all involved must understand what action is required to avoid or reduce the risks involved.**
- **Emergency controls must be located and tested.**
- **Ensure that effective rescue procedures have been established should a worker become trapped or crushed.**
- **Ensure equipment is be maintained as per the manufacturer's instructions.**
- **Ensure controls and safety devices are operating properly and control decals are legible.**
- **Particular attention should be given to lighting levels – additional task lighting or personal lighting may be necessary.**
- **Elevating work platform operators are to be trained and familiar with specific equipment operation and follow manufacturer's operating instructions. Conduct pre-operation inspections as per the manufacturer's operating manual.**
- **The operator of an elevating work platform must be aware of their position in tight areas. Subject to the findings of the risk assessment, an operator should operate the machine with extra care when working near obstructions.**
- **Operators working alone in restricted areas may be at risk, as others may not be aware of any distress if the worker becomes trapped or crushed. Constant monitoring and/or communication should be considered, as delay for assistance to the worker may prove fatal.**

For more information

Ontario's Occupational Health and Safety Partners

Elevating Work Platform Safety in Construction

- Issued: July 2011
- Content last reviewed: July 2011

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer.

This page is being updated to reflect amendments to O. Reg. 213/91 (Construction Projects) that came into force on January 1, 2017.

Improper use of access equipment on construction projects continues to cause workplace injuries in Ontario. The use of elevating work platforms may put workers at risk when the equipment is not adequately used, maintained or stored, or when manufacturer's instructions are not followed and equipment limitations are not respected.

Some general duties of workplace parties

Employers

Employers' obligations under the Occupational Health and Safety Act (OHSA) and the Construction Projects Regulation include, but are not limited to:

- ensuring workers are adequately trained in the use of fall protection systems at Ontario construction sites [O. Reg. 213/91, section 26.2]
- appointing a competent person as a supervisor [OHSA clause 25(2)(c)]
- taking every precaution reasonable in the circumstances for the protection of a worker [OHSA clause 25(2)(h)].

An employer with six or more workers must also:

- prepare an occupational health and safety policy
- review that policy at least once a year
- set up a program to implement it [clause 25(2)(j)], and
- post, in a conspicuous place, a copy of the occupational health and safety policy [OHSA clause 25(2)(k)].

Supervisors

Supervisors' duties under the OHSA include, but are not limited to:

- ensuring workers work in compliance with the act and regulations, using protective devices, measures and procedures required by the OHSA and regulations [clause 27(1)(a)]
- taking every precaution reasonable in the circumstances for the protection of workers [clause 27(2)(c)].

Workers

Workers' duties under the OHSA include, but are not limited to:

- working in compliance with the act and regulations, using protective devices, equipment and clothing that their employer requires them to use [subsection 28(1)], and
- not using or operating any equipment, machine, device or thing or working in a manner that may endanger themselves or any other worker [clause 28(2)(b)].

Protecting workers

All workplace parties — employers, supervisors and workers — are responsible for ensuring compliance with the provisions of the OHSA and the prescribed regulations. There are many factors to consider for the safe use of elevating work platforms on construction projects.

Obligations under the OHSA and the Construction Projects Regulation

- The elevating work platform:
 - must not be loaded in excess of its rated working load
 - must be situated on a firm and level surface
 - must be operated only in accordance with the written instructions of the manufacturer
 - shall not be loaded and used in such a manner as to affect its stability or endanger a worker, and
 - shall not be moved unless all workers on it are protected against falling by a safety belt attached to the platform [O. Reg. 213/91, section 148].
- The area around the elevating work platform secured (access restricted by fencing or barriers) so as not to endanger any nearby worker [O. Reg. 213/91, section 109].
- The elevating work platform must comply with the applicable National Standard of Canada as set out in O. Reg. 213/91. A professional engineer must have certified in writing that the elevating work platform is in compliance with the applicable National Standard. The certificate provided by the professional engineer must include the details of testing carried out on the elevating work platform and outlined in the standard [O. Reg. 213/91, section 144].
- The platform must be equipped with guardrails [O. Reg. 213/91, subsection 144(7)].
- Workers on the platform must be protected from a fall by a safety belt attached to the platform when it is being moved [O. Reg. 213/91, section 148].
- The elevating work platform must have signs that are clearly visible to an operator at its controls indicating its rated working load, all the limiting working conditions and warnings by the manufacturer (and

direction of machine movement for non boom-type elevating work platforms) [O. Reg. 213/91, section 144].

- The elevating work platform must have (clearly visible to the operator) the name and number of the National Standards of Canada standard to which it was designed and the name and address of its owner [O. Reg. 213/91, section 144].
- A maintenance and inspection record tag must be attached to the elevating work platform near the operator's station. Such tag must include the date of the last maintenance and inspection, the signature and name of the person who performed the maintenance and inspection, and an indication that the maintenance has been carried out in accordance with the manufacturer's recommendations [O. Reg. 213/91, section 146].
- The operator must have been given oral and written instructions on the use and limitations of the elevating work platform. [O. Reg. 213/91, section 147].
- The operating manual must be kept with the elevating work platform [O. Reg. 213/91, section 149].
- The elevating work platform must be used in accordance with the operating manual [O. Reg. 213/91, section 148].
- The elevating work platform must be inspected daily by a trained worker [O. Reg. 213/91, clause 144(3)(b)].
- The owner must have a permanent record of all inspections, tests, repairs, modifications and maintenance performed on the elevating work platform. This record must include the name and signature of the persons who carried out the maintenance, tests or repairs. [O. Reg. 213/91, section 145].
- Safe distance must be maintained from overhead energized power lines as dictated by the voltage of the power lines and relevant legislation [O. Reg. 213/91, sections 187 and 188]
- Workers need to be aware of the written emergency procedures in place (required to be established by the constructor) at the project in the event of an accident [O. Reg. 213/91, section 17].
- Employers must ensure that PPE needed for the job is used by workers and maintained in good condition. The PPE must comply with applicable standards. Where required, the employer must ensure that the PPE is used, maintained and stored according to manufacturer's instructions, applicable standards, and legislated requirements. The workers must be adequately trained on the use of the PPE [O. Reg. 213/91, sections 21, 26 and 93].
- Workers need to know who is in charge of the operation — supervisor? "competent person"⁽¹⁾ ? [O. Reg. 213/91, section 14].

Health and safety considerations and best practices

Here are some of the many factors to consider for the safe use of elevating work platforms on construction projects:

- Analyze the job hazards. Are there ventilation issues that need to be addressed? Could carbon monoxide from internal combustion engines accumulate?
- Review the work area to where the equipment is being elevated. Is there adequate lighting? Are there any obstructions above that could strike or crush a worker?
- Has specific training been provided to address identified hazards while using the elevating work platform – including training on fall protection, material handling, Workplace Hazardous Materials Information System (WHMIS), etc.?
- Have any hazardous chemical and other toxic substances been identified, and are there engineering controls and other safety measures in place to deal with them?
- Has the proper equipment been provided for material handling to reduce the risk of overexertion or musculoskeletal disorders? (Consider work positioning, lifting devices, etc.)
- All workers, including young workers and workers new to the job, must be adequately trained and properly supervised.
- Specific work-related hazards must be analyzed and relevant controls established.

More information about safety on construction projects

- [Ministry of Labour, construction safety](#)
- [Infrastructure Health & Safety Association](#)
- [Workplace Safety & Insurance Board](#)
- [CSA standards \(view only\) referenced in occupational health and safety legislation](#)

Call toll-free

Call 1-877-202-0008 anytime to report workplace health and safety incidents or for general inquiries about health and safety at the workplace.

⁽¹⁾The OHSA defines a “competent person” as:

- having the knowledge, training and experience to organize the work
- being familiar with the OHSA and the Construction Regulation, and
- being able to identify existing and potential health and safety hazards and/or unsafe working conditions.

- Issued: July 2011
- Content last reviewed: July 2011

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer. Improper use of ladders on construction projects continues to be a major cause of workplace injuries in Ontario.

Some general duties of workplace parties

Employers

Employers' obligations under the Occupational Health and Safety Act (OHSA) and the Construction Projects Regulation include, but are not limited to:

- ensuring workers are adequately trained in the use of fall protection systems at Ontario construction sites [O. Reg. 213/91, section 26.2]
- appointing a competent person as a supervisor [OHSA clause 25(2)(c)]
- taking every precaution reasonable in the circumstances for the protection of a worker [OHSA clause 25(2)(h)].

An employer with six or more workers must also:

- prepare an occupational health and safety policy
- review that policy at least once a year
- set up a program to implement it [clause 25(2)(j)], and
- post, in a conspicuous place, a copy of the occupational health and safety policy [OHSA clause 25(2)(k)].

Supervisors

Supervisors' duties under the OHSA include, but are not limited to:

- ensuring workers work in compliance with the act and regulations, using protective devices, measures and procedures required by the OHSA and regulations [clause 27(1)(a)], and
- taking every precaution reasonable in the circumstances for the protection of workers [clause 27(2)(c)].

Workers

Workers' duties under the OHSA include, but are not limited to:

- working in compliance with the act and regulations, using protective devices, equipment and clothing that their employer requires them to use [subsection 28(1)], and
- not using or operating any equipment, machine, device or thing or working in a manner that may endanger themselves or any other worker [clause 28(2)(b)].

Protecting workers

All workplace parties – employers, supervisors and workers – are responsible for ensuring compliance with the provisions of the OHSA and prescribed regulations. There are many factors to consider for the safe use of ladders on construction projects.

Obligations under the OHSA and the Construction Projects Regulation

- **Manufactured ladders on a construction project must comply with O. Reg. 213/91, section 78.**
- **Job-built wooden ladders must comply with O. Reg. 213/91, sections 81 and 82.**
- **A ladder must be used in accordance with the manufacturer's instructions [O. Reg. 213/91, section 93(3)].**
- **Safe distance must be maintained from energized electrical equipment and overhead power lines [O. Reg. 213/91, sections 187 and 188].**
- **Workers need to be aware of the written emergency procedures in place (required to be established by the constructor) at the project in the event of an accident [O. Reg. 213/91, section 17].**
- **Employers must ensure that personal protective equipment (PPE) needed for the job is used by workers and maintained in good condition. The PPE must comply with applicable standards. Where required, the employer must ensure that the PPE is used, maintained and stored according to manufacturer's instructions, applicable standards, and legislated requirements. The workers must be adequately trained on the use of the PPE [O. Reg. 213/91, sections 21, 26 and 93].**
- **Workers need to know who is in charge of the operation – supervisor? "competent person"⁽¹⁾? [O. Reg. 213/91, section 14].**

Health and safety considerations and best practices

Here are some of the many factors to consider for the safe use of ladders on construction projects:

- **Does a ladder provide the safest means of access and egress for the work location and type of work – or would stairs or a ramp be better, especially with respect to workplace emergency procedures?**
- **What type of ladder is most suitable considering the workplace restrictions and conditions (height, space, proximity of energized power lines, top support, footing support surface, etc.)? Never use metal ladders near energized electrical equipment or wires.**

- Has the proper equipment been provided for material handling to reduce the risk of overexertion or musculoskeletal disorders? (Consider work positioning, lifting devices, etc.)
- How are materials and equipment transported or moved between levels?
- Is the user of the ladder able to maintain three-point contact at all times when entering to or leaving the work location?
- If work must be carried out at height, a work platform should be used. Ladders should be used to work at heights only as a last resort – when location restrictions prevent the use of a work platform.
- A worker on a ladder must be protected against falling if he/she is working at a height of 3 metres or more.
- Defective ladders should be taken out of service and discarded.
- All workers, including young workers and workers new to the job, must be adequately trained and properly supervised.
- Specific work-related hazards must be analyzed and relevant controls established.

More information about safety on construction projects

- [Ministry of Labour, construction safety](#)
- [Infrastructure Health & Safety Association](#)
- [Workplace Safety & Insurance Board](#)
- [CSA standards \(view only\) referenced in occupational health and safety legislation](#)

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⁽¹⁾The OHSA defines a “competent person” as:

- having the knowledge, training and experience to organize the work
- being familiar with the OHSA and the Construction Regulation, and
- being able to identify existing and potential health and safety hazards and/or unsafe working conditions.

Suspended Access Equipment on Construction Projects – Technical Guideline

- Issued: June 13, 2017
- Content last reviewed: June 2017

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer.

Purpose of this guideline

This guideline is intended to assist designers, engineers, fabricators, owners and suppliers of suspended access equipment (SAE) by clarifying the intent and meaning of certain technical aspects of sections 136.1 to 142.06 applicable to suspended work platform systems and boatswain's chairs found in Ontario Regulation 213/91, Construction Projects (the Construction Regulation) that came into effect on January 1, 2017. This guideline does not address general SAE user questions nor does it address questions relating to multi-point suspended work platforms. All references to specific regulatory provisions in this guideline are to the Construction Regulation unless otherwise stated.

Regulated definitions

Certain new terms related to SAE have been defined in the Construction Regulation. Additional explanations have been provided here for the following definitions extracted from subsection 1(1) and from section 136.1, as the case may be, of the Construction Regulation.

Allowable suspended load

"Allowable suspended load" means the combined weight of a suspended work platform or boatswain's chair, the hoisting device or devices, the rated platform capacity and the suspended portion of the suspension line or lines (section 136.1).

The term "allowable suspended load" includes hoisting devices, suspension lines and power cords and the "rated platform capacity" with the addition of the self-weight (dead load) of the suspended work platform or suspended work platform module(s).

Anchorage connector

"Anchorage connector" means a component or a system of components of a fixed support that secures a suspended work platform or boatswain's chair and its associated suspension lines and lifelines to the fixed support (section 136.1).

The term "anchorage connector" refers to a specific component or system of components of a fixed support that includes, but is not limited to, anchors and baseplates with attached loops for use in both permanent and temporary "suspended work platform systems" (SWPS). The specific design requirements for an "anchorage connector" are stated in subsection 141.1(6). The term "anchorage connector" should not be confused with the term "anchorage" as referenced in the CSA Z271-10 Standard. The Ministry of Labour interprets the term "anchorage" as referring to the substrate in which the "anchorage connector" is connected, such as but not limited to, a steel beam or concrete roof slab.

The Construction Regulation does not make a distinction between an “anchorage connector” used for tie-backs, for suspension lines or for lifelines. All are considered “anchorage connectors.”

Critical weld

“Critical weld” means, in relation to a suspended work platform, a weld the failure of which could result in the complete or partial collapse of the suspended work platform (subsection 1(1)).

All “critical welds” on structural components of a suspended work platform must be identified on the design drawing(s). If the design does not include any “critical welds” on structural components of a suspended work platform, then the non-destructive testing requirements prescribed in subsection 139.1(3) are not applicable.

The term partial collapse in the definition of “critical weld” refers to a non-catastrophic failure of a suspended work platform as a result of the failure of one or several critical welds located on components of the suspended work platform. The structural failure of a “critical weld” occurs when the load carrying capacity of the “critical weld” is diminished from that for which it is designed and the work platform can no longer support the rated capacity. The Ministry of Labour considers a partial collapse to be an event in which the suspended work platform moves unexpectedly due to a weld failure in a structural component.

A “critical weld” structural failure may be detected visibly or may only be detectable by non-destructive testing (defined below), thus the necessity of testing.

Fixed support

“Fixed support” means a permanent or temporary structure or a component of such a structure that can withstand all loads and forces the structure or component is intended to support or resist and is sufficient to protect a worker’s health and safety and includes equipment or devices that are securely fastened to the structure or component (subsection 1(1)).

The definition of a “fixed support” includes, but is not limited to, an “anchorage connector” which may include anchors, and a base plate with an attached loop etc. A “fixed support” also includes items such as outriggers and supporting structures but these items are not considered an “anchorage connector” (see [Appendix A](#) for a sketch).

A “fixed support” does not include any part of the suspension system such as the suspension line and associated components.

Generic installation drawing

“Generic installation drawing” means a drawing and related documentation, if any, that,

- a. identifies components, configurations and load limitations of a suspended work platform system or powered boatswain’s chair,**
- b. is intended to be used at any location where all of the requirements in the drawing and documentation are satisfied, and**
- c. bears the seal and signature of a professional engineer confirming that a suspended work platform system or boatswain’s chair installed in accordance with the drawing would be in compliance with the requirements of this Regulation (subsection 1(1)).**

The requirement for a “generic installation drawing” is acceptable for installations and configurations of suspended work platform(s) (and powered boatswain’s chair(s)) that are designed by the manufacturer to work in common situations without modification from the manufacturer’s instructions. These common configurations must be included on a drawing, or in some cases drawings, and related documentation, sealed and signed by a professional engineer, which identifies the configurations, components and load limitations for their suspended work platform (or powered boatswain’s chair). The sealed and signed “generic installation drawing(s)” and related documentation must be kept at the project and made readily available to an inspector upon request.

While the “generic installation drawing” only applies to the installation of the platform or the boatswain’s chair, the employer must ensure that all other system components such as outriggers, anchorage connectors, suspension cables, etc. meet the appropriate regulatory requirements. Employers may wish to have supporting documentation that may be made available to an inspector upon request to assist in demonstrating compliance.

Professional engineer

“Professional engineer” means a person who is a professional engineer within the meaning of the Professional Engineers Act (subsection 1(1)).

A professional engineer is a person who holds a licence or temporary licence issued under the Professional Engineers Act to engage in the practice of professional engineering.

Rated platform capacity

“Rated platform capacity” means the combined weight of occupants, tools, equipment and other material that the manufacturer has indicated can be safely carried by a suspended work platform, work platform module or boatswain’s chair (subsection 1(1)).

The “rated platform capacity” for the modular configuration of a suspended work platform is determined by the manufacturer. The suspended work

platform module configurations must be designed for a minimum “rated platform capacity” as prescribed in subsection 137.1(3).

The employer must ensure that the “rated platform capacity” is never exceeded (subsection 142.01 (5)) and should remember that the load carried by a work platform may not be constant. For example, when materials such as construction debris or abrasive blasting grit accumulate on a platform, they add to the load. The employer must remember to take the increased load from such materials into account when ensuring that the “rated platform capacity” is not exceeded.

The designers of the suspended work platform modules must ensure that all connections between suspended work platform modules are designed to transfer and withstand all loads that connections are expected to experience within the “rated platform capacity” (subsection 137.1(5)).

The “allowable suspended load” includes hoisting devices, suspension lines and power cords and the “rated platform capacity” with the addition of the self-weight (dead load) of the suspended work platform or suspended work platform module(s).

Site-specific installation drawing

“Site-specific installation drawing” means a drawing and related documentation, if any, that identifies components, configurations and load limitations of a suspended work platform system or powered boatswain’s chair for use at a specific site (subsection 1(1)).

A “site-specific installation drawing” will be required for suspended work platform systems when any one of the circumstances prescribed in subsection 141.6(3) apply, or if not all of the requirements in the “generic installation drawing” can be satisfied. Please note subsection 141.6(3) paragraph 6, which prescribes a “site-specific installation drawing” whenever shielding, tarpaulin, enclosure, sign or banner are used with a suspended work platform.

If a “site-specific installation drawing” is to be used, a professional engineer must prepare the drawing, inspect the installation for compliance with the site-specific installation drawing(s) before the suspended work platform system is put into service for the first time, and must write a report indicating whether the suspended work platform system has been installed in compliance with the drawing(s). The suspended work platform may not be put into service unless the professional engineer’s report indicates it has been installed in accordance with the site-specific installation drawing(s).

The sealed and signed “site-specific installation drawing(s)” and related documentation, and the professional engineer’s report must be kept at the project and made readily available to an inspector upon request.

Undefined terms

The provisions related to SAE in the Construction Regulation contain a number of terms in regards to suspended work platforms that are not defined but are

referenced in the explanatory comments that follow in this guideline. For clarity, these undefined terms are explained before providing explanatory comments on the selected sections below.

Suspended work platform module and work platform module

“Work platform” and “suspended work platform system” are defined in section 136.1 and subsection 1(1) of the Construction Regulation, respectively, however; the terms “suspended work platform module” and “work platform module” are not defined. There are multiple references to these two terms in sections 137 to 142.06.

As defined in the Construction Regulation:

- **“work platform” means a built or manufactured work surface that, as the context requires, is intended to be used as or is in use as the work area of a suspended work platform system, but does not include a boatswain’s chair (section 136.1).**
- **“suspended work platform system” means an access system comprising one or more overhead fixed supports, one or more suspension lines, hoisting devices, if any, and one or more work platforms that can be moved vertically, but it does not include a boatswain’s chair or a multi-point suspended work platform (subsection 1(1)).**

The Construction Regulation recognizes that work platforms are not always constructed as one singular continuous structure, but may be made up of separate modules connected together. Therefore, the undefined terms “suspended work platform module” and “work platform module” are used in the Construction Regulation provisions related to SAE. These terms simply refer to “suspended work platforms” and “work platforms,” respectively, that are modular in nature and are not constructed as one singular continuous structure.

Selected sections relating to engineering matters

General design requirement — subsection 137(1)

As of January 1, 2017 all suspended work platform systems and powered boatswain’s chairs used on construction projects in the Province of Ontario must be designed by “professional engineers.”

For work platforms that were designed before January 1, 2017, a professional engineer must prepare a report that confirms that the structural integrity of the work platform is at least equal to the structural integrity of a work platform that is designed by a professional engineer and in accordance with the Construction Regulation (subsection 137.3(2)).

Suspended work platform system/powered boatswains' chairs, design criteria — section 137

Subsection 137(6) prescribes the factored load combination that must be used in the design of the suspended work platform.

Clause 137(3)(b) and subsection 137(4) deal with design requirements for additional loads that may be applied on the suspended work platform system when it is in use, i.e., from wind or accumulation of materials. While these types of loads are accounted for in the design requirements, it remains the employer's responsibility to ensure that the "rated platform capacity" is never exceeded (subsection 142.01(5)). In addition, if a work platform will be used that has any shielding, tarpaulin, enclosure, sign or banner on it that may increase the wind loads on the components of the suspended work platform system, a professional engineer must prepare a site-specific installation drawing (paragraph 6 of subsection 141.6(3) and section 141.8).

The intent of clause 137(3)(b) is to make sure that the suspended work platform's "allowable suspended load" and the associated load applied on the suspended work platform system are not exceeded by the additional loads applied as set out in the CSA Standard Z271-10, clause 6.1.5. The phrase, "any other loads likely to be applied to it" refers to a site-specific installation where the professional engineer will account for additional loads on the suspended work platform system for the specific project.

Additional load allowance for debris or blasting grit — subsection 137.1(4)

The intent for subsection 137.1(4) is to address the additional construction debris loads that a suspended work platform may be subjected to depending on the work being conducted, such as but not limited to, concrete debris. The manufacturer provides the rated platform capacity for the suspended work platform. This capacity will include items such as the construction debris, tools, etc., and workers on the suspended work platform. Therefore, it is up to all workplace parties to make sure that the work being conducted on the platform does not exceed the manufacturer's rated platform capacity and that the "allowable suspended load" of the suspended work platform system is not exceeded.

Work platform design drawing(s) requirements — section 137.2

Section 137.2 establishes requirements for the design drawing(s) of a "work platform." Clause 137.3(6)(a) requires an employer to make the design drawing(s) available to an inspector upon request while the "work platform" is in use at the project; however, the ministry recognizes that a manufacturer may not provide the design drawing(s) to employers. As a result, the design drawing(s) of a "work platform" may not be located at the project.

The manufacturer may consider the design drawing(s) to be proprietary but this does not preclude the Ministry of Labour from requesting these

documents when enforcing the legislation. The Ministry of Labour will work with employers to obtain the necessary information from the manufacturer as required. Under the Occupational Health and Safety Act, Ministry of Labour inspectors are required to maintain the confidentiality of proprietary information.

Work platform testing requirements — section 137.3

Subsection 137.3(2) requires a professional engineer to prepare a written report that confirms that the structural integrity of a work platform designed before January 1, 2017 is at least equal to the structural integrity of a work platform designed in accordance with sections 137 and 137.1.

Subsection 137.3(3) requires a professional engineer to prepare a written report which confirms that a work platform designed on or after January 1, 2017 meets the design requirements in sections 137 and 137.1, provides the results confirming that the ANSI/UL 1322-2004 testing requirements in clause 137.3(3)(b) are met and provides proof that the manufacturer has been certified to International Standard ISO 9001.

The ANSI/UL 1322-2004 testing results must be part of the report written by a professional engineer. The ANSI/UL 1322-2004 Standard is the version referenced in the Construction Regulation, as such; this is the version that must be used in the testing.

The intent of the term “worst case configuration” in clause 137.3(3)(b) is to make sure that the manufacturer tests the worst possible configuration, such that if this configuration passes then the other configurations will also pass without testing.

Clause 137.3(3)(d) requires a professional engineer to write a report that provides proof that the manufacturer of a suspended work platform or suspended work platform module has been certified to International Standard ISO 9001. If the manufacturer has not been certified to the International Standard ISO 9001, then the professional engineer must ensure that the requirements in subsection 137.3(4) are complied with and a quality assurance report is written.

Non-destructive testing (critical welds) — section 139.1

All critical welds used on the work platform must be identified on the design drawings, as prescribed in clause 137.2(d). “Non-destructive test” (NDT) means one of the below methods of testing or examining a material, component or part to evaluate its condition without subjecting it to physical distortion, damage or destruction.

Acceptable methods of non-destructive testing are:

1. eddy current testing
2. magnetic particle testing
3. liquid penetrant testing

4. radiographic testing
5. ultrasonic testing.

Every non-destructive test must be carried out and interpreted by a person who has been certified by Natural Resources Canada to the appropriate level in accordance with CAN/CGSB Standard 48.9712-2014, Non-destructive Testing – Qualification and Certification of Personnel (subsection 1(1.1)). The person conducting the testing and writing the report is not required to be a professional engineer; however, they must meet the requirements stipulated in the CGSB Standard.

Non-destructive testing must be conducted at least on an annual basis, on a randomly selected representative sample of each structural component containing critical welds, as required in the Table (subsection 139.1(3)). Every supplier of and an employer who uses or owns a work platform must ensure that the non-destructive testing requirements are completed.

The structural components of a work platform are categorized into two groups, namely; Group 1 or Group 2:

- Group 1 — work platform trusses, corner or angled sections and platform modules
- Group 2 — work platform stirrups, module connectors and end frames.

The reason for having two groups is to divide the big components (Group 1) from the smaller components (Group 2) with regard to the number of structural components to be tested.

Non-destructive testing must be conducted on every critical weld on each of the structural components selected as part of the representative sample. The Table specifies how many representative samples must be tested based on the supplier or employer's entire inventory of suspended work platforms.

Other parts of a suspended work platform not listed in Group 1 or Group 2 must be visually inspected for damage at least once within the 12-month period prior to being on a project and at least once annually while on the project (subsection 139.1(8)).

If a manufacturer indicates that there are no critical welds on structural components of the suspended work platform, then the non-destructive testing requirements prescribed in subsection 139.1(3) are not required.

Unique identifier, structural components — subsection 141(2)

The purpose of providing a unique identifier to specific structural components as prescribed in subsection 141(2) is to provide a means by which each specific structural component can be readily identified and distinguished for the purpose of tracking its history as recorded in the permanent equipment log prescribed in section 140. The equipment log must contain records of all

inspections, tests, repairs, modifications and maintenance performed on the structural components of every work platform.

Fixed supports, design requirements — section 141.1

All fixed supports must be designed by a professional engineer. The professional engineer must design outriggers and supporting structures using the load factors prescribed in subsection 141.1(4) when calculating the factored resistance for the material being designed in conjunction with the Limit States Design methodology. The requirement prescribed in subsection 141.1(4) does not apply to anchorage connectors, which must be designed in accordance with subsection 141.1(6).

In addition, components that may be subject to overturning, such as but not limited to outriggers and supporting structures, must be designed and constructed to support at least four times the allowable suspended load or force as prescribed in subsection 141.1(5). The intent of this section is to provide a factor of safety against overturning for components that are susceptible to overturning. This is a stand-alone requirement for the stability of the system and not a factor of safety for the material properties of the components.

Anchorage connector, design requirement — subsection 141.1(6)

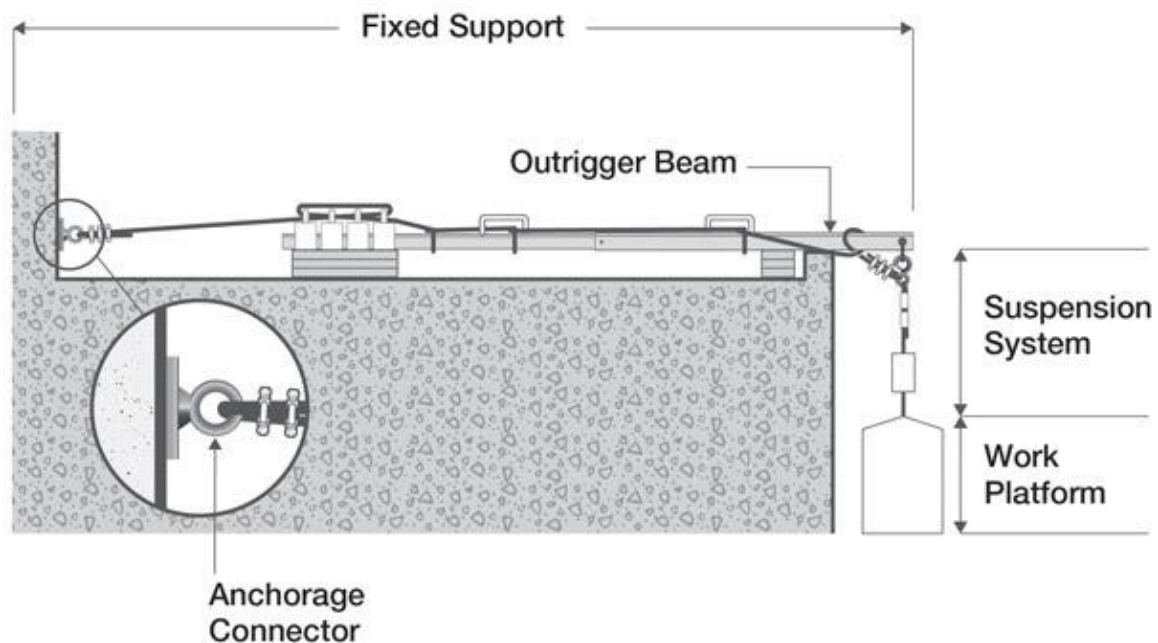
The definition for anchorage connector contained in section 136.1 is similar but not identical to the definition provided in the CSA Z271-10 Standard. The term “anchorage connector” is used in the Construction Regulation in order to clarify that the component or system of components that is the “anchorage connector” is part of a fixed support. A “fixed support” includes but is not limited to an “anchorage connector” where the term “anchorage connector” may include anchors and a base plate with an attached loop, etc. A “fixed support” also includes items such as outriggers and supporting structures but these items are not considered an “anchorage connector.”

A “fixed support” does not include any part of the suspension system such as the suspension line and associated components.

The term “anchorage connector” should not be confused with the term “anchorage” as referenced in the CSA Z271-10 Standard. The Ministry of Labour interprets “anchorage” to refer to the substrate (e.g. a steel beam or concrete roof slab) in which the “anchorage connector” is connected.

An anchorage connector and its anchorage must be designed to resist the loads prescribed in subsection 141.1(6). However, if the span between adjacent points of suspension for the suspended work platform system exceeds 12 metres, the anchorage connector and its anchorage must be designed for the additional load on the anchorage connector or anchorage using the minimum live loads prescribed in subsection 137.1(3). The intent in this section is to make sure that the anchorage connectors and anchorage do not experience loads in excess of those allowed in subsection 141.1(6).

Appendix A contains a sketch of the components of a suspended work platform system.



Work platforms and components over 525 kg — paragraph 2 of 141.6(3)

Subsection 141.6(3) sets out specific circumstances where a site specific installation drawing is required. One circumstance that engages the requirement for a site specific drawing is if there will be a work platform, including its components, that weighs more than 525 kg as stated in paragraph 141.6(3)(2). This refers to the dead load of the suspended work platform and its components, which consist of the suspended work platform or suspend work platform module, hoists, suspension lines and power cord/boxes. For further clarity, hoists must be part of the dead load calculation.

Suspended access equipment hoisting device requirements — subsection 142.01(4)

The hoisting requirements in clause 8 of the CSA Standard Z271-10 must be met for all suspended work platform systems as prescribed in clause 142.01(4)(b).

Please note: Clause 8.4.6.8.1 of the CSA Standard requires that the capacity of a ground launched suspended work platform must be limited. The hoist must be limited so that it cannot lift more than 150% of its rated capacity. This can be accomplished by one of two means:

- 1. The actual lifting capacity of the hoist must not be more than 150% of the rated capacity; or**
- 2. The hoist must be provided with an overload device that will prevent it from lifting if the actual suspended load exceeds 150% of the maximum allowable suspended load.**

Suspended work platform hangers — subsection 142.06(5)

The intent of this section is to make sure that non-walk-through hangers (i.e. stirrups) which could be used by some manufacturers are not placed too close to, or too far from, the edge of the suspended work platform. Modular suspended work platforms that are designed with hangers on the ends may be in compliance with the Construction Regulation if the employer, owner or constructor can demonstrate compliance with the equivalency procedure in section 3 of the Construction Regulation.

Appendix A: Components of a typical suspended work platform system

The sketch shows components of a typical suspended work platform system. The sketch is for information only. Follow manufacturer's instructions when using suspended work platforms.

A brief description of each component and the general location of the design requirements for that component in the Construction Regulation follows.

Anchorage connector

Includes base plate and eye loop (which is affixed to the anchorage) but does not include the tie-back rigging hardware. The design for the anchorage connector must be as prescribed in subsection 141.1(6). The anchorage connector falls under the definition for a fixed support.

Outrigger beam

The outrigger beam, associated counterweights and supporting structure if any, falls under the definition of a fixed support. The outrigger beam structure must be designed using the load factors prescribed in subsection 141.1(4) in conjunction with the Limit States Design methodology provisions in the Building Code. The design of the outrigger beam and if applicable, supporting structure must meet the requirements of subsection 141.1(5) for overturning.

Suspension system

The suspension system includes wire ropes, hoisting mechanism, rigging hardware as well as the tie-back wire rope and associated rigging hardware.

The suspension system must comply with the requirements prescribed in section 142.01.

Work platform

The work platform includes the platform and support structures such as trusses, stirrups, modules and module connectors, corner or angled sections and end frames. The work platform design must meet the requirements of section 137, and section 137.1.

More information

- **Ministry of Labour, construction safety amendments**
- **Infrastructure Health & Safety Association**
- **Workplace Safety & Insurance Board**
- **CSA standards (view only) referenced in occupational health and safety legislation**
- **Canadian General Standards Board**
- **Multi-point suspended work platform (MPSWP) guidelines and regulations**

Call toll-free

Call toll-free 1-(877)-202-0008 any time to report critical injuries, fatalities or work refusals.

Call Monday to Friday 8:30 a.m. to 5 p.m. for general inquiries about workplace health and safety. Always call 911 in an emergency.

Concrete Forming, Masonry, Siding, Framing and Roofing:

Safe Concrete Forming on Low-Rise Residential Construction Projects

- Issued: May 2011
- Content last reviewed: May 2011

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer.

Concrete forming on low-rise residential construction projects can be hazardous. The health and safety of workers must not be put at risk by the constant activity, the use of large equipment, and the handling of heavy material.

Some duties of workplace parties

Employers

Employer obligations under the Occupational Health and Safety Act (OHSA) include:

- ensuring workers are trained in fall hazards [O. Reg 213/91, s. 26.2 (1) (4)]
- appointing a competent person as supervisor [clause 25(2)(c)]
- taking every precaution reasonable in the circumstances for the protection of a worker [clause 25(2)(h)], and
- posting a copy of the occupational health and safety policy in the workplace, where workers will be most likely to see it [clause 25(2)(k)].

An employer with six or more workers must also:

- prepare an occupational health and safety policy, review that policy at least once a year, and set up a program to implement it [clause 25(2)(j)].

Supervisors

The OHSA sets out specific duties for workplace supervisors. A supervisor must:

- ensure workers work in compliance with the protective devices, measures and procedures required by the OHSA and regulations [section 27(1)(a)]
- take every precaution reasonable in the circumstances for the protection of workers [section 27(2)(c)].

Protecting workers

Employers and supervisors must ensure that all of the provisions of the OHSA and prescribed regulations are complied with by all workplace parties.

Health and safety considerations for low-rise concrete forming

- Have the specific work-related hazards been analyzed?
- Has specific training been provided to inspect hazards identified for low-rise concrete forming (e.g., fall protection, excavation safety, material handling, Workplace Hazardous Materials Information System (WHMIS), signalling/flagging)?
- Concrete pumping is encouraged; is there a level delivery area to allow trucks close enough to place concrete without additional chutes?
- Will any work be performed from ladders, scaffolds and work platforms? (Ensure correct size and use, and workers' competence.)
- Has entry to — and exit from — the work area been considered, and have ways been identified to keep this area free of obstructions?

(Consider level ground, debris removal, proximity of forms to erection location.)

- Has proper equipment been provided for material handling to reduce the risk of overexertion or musculoskeletal disorders? (Consider forklifts, cranes, boom trucks, and other lifting devices.)
- Are workers trained in safe use of access equipment such as ladders, scaffolds, work platforms and powered elevating work platforms?
- Is hearing protection required?
- Have hazardous chemicals and other toxic substances been identified, and are there engineering controls and other safety measures in place to deal with them?

Inspector focus

When encountering concrete forming operations at low-rise residential construction projects, ministry inspectors will address the specific hazards identified in this fact sheet, making certain that employers, supervisors and workers comply with the Occupational Health and Safety Act and its regulations, especially the sections of the Construction Regulation (O. Reg. 213/91) that apply to these hazards.

More information about safety on construction projects

- Ministry of Labour, construction safety
- Infrastructure Health & Safety Association
- Workplace Safety & Insurance Board
- CSA standards (view only) referenced in occupational health and safety legislation

Call toll-free

Call 1-877-202-0008 anytime to report workplace health and safety incidents or for general inquiries about health and safety at the workplace.

Safe workplaces mean productive workplaces

Safe Framing and Roofing at Low-Rise Residential Construction Projects

- Issued: May 2011
- Content last reviewed: May 2011

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety

Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer.

Falls on construction projects continue to be the main cause of workplace injuries in Ontario. Framing and roofing operations are particularly vulnerable.

Some duties of workplace parties

Employers

Employer obligations under the Occupational Health and Safety Act (OHSA) include:

- **ensuring workers are trained in fall hazards [O. Reg. 213/91, s. 26.2 (1)-(4)]**
- **appointing a competent person as supervisor [clause 25(2)(c)]**
- **taking every precaution reasonable in the circumstances for the protection of a worker [clause 25(2)(h)], and**
- **posting a copy of the occupational health and safety policy in the workplace, where workers will be most likely to see it [clause 25(2)(k)].**

An employer with six or more workers must also:

- **prepare an occupational health and safety policy, review that policy at least once a year and set up a program to implement it [clause 25(2)(j)].**

Supervisors

The OHSA sets out specific duties for workplace supervisors. A supervisor must:

- **ensure workers work in compliance with the protective devices, measures and procedures required by the OHSA and regulations [clause 27(1)(a)]**
- **take every precaution reasonable in the circumstances for the protection of workers [clause 27(2)(c)].**

Protecting workers

Employers and supervisors must ensure that all of the provisions of the OHSA and prescribed regulations are complied with by all workplace parties.

Health and safety considerations for framing and roofing operations

- **Have the specific work-related hazards been analyzed?**
- **Has specific training been provided to address hazards identified for framing/roofing operations (e.g., fall protection, material handling,**

Workplace Hazardous Materials Information System (WHMIS), forklift operation)?

- **Are emergency and rescue procedures in place at the project in the event of an accident?**
- **Will any work be performed from ladders, scaffolds and work platforms? (Ensure correct size and use, and workers' competence.)**
- **Has the proper equipment been provided for material handling to reduce the risk of overexertion or musculoskeletal disorders? (Consider forklifts, cranes, and other lifting devices.)**
- **Are workers trained on the safe use of access equipment such as: ladders, scaffolds, work platforms and powered elevating work platforms?**
- **Is hearing protection required?**
- **Have any hazardous chemical and other toxic substances been identified, and are there engineering controls and other safety measures in place to deal with them?**

Inspector focus

When encountering framing and roofing operations at low-rise residential construction projects, ministry inspectors will inspect the specific hazards identified in this fact sheet, making certain that employers, supervisors and workers comply with the Occupational Health and Safety Act and its regulations, especially the sections of the Construction Regulation (O. Reg. 213/91) that apply to these hazards.

More information about safety on construction projects

- **Ministry of Labour, construction safety**
- **Infrastructure Health & Safety Association**
- **Workplace Safety & Insurance Board**
- **CSA standards (view only) referenced in occupational health and safety legislation**

Call toll-free

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Safe workplaces mean productive workplaces

Prevent Injuries in Concrete Forming, Masonry, Siding and Built-up Roofing Trades

- **Issued: February 2012**
- **Content last reviewed: February 2012**

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer. The Ministry of Labour is increasing enforcement of the Occupational Health and Safety Act (OHSA) and the Regulations for Construction Projects and promoting awareness of safety measures to improve the safety of high rise and low rise concrete forming, masonry, siding and built-up roofing (also known as “flat-roofing”) trades.

The lost-time injury (LTI) rate⁽¹⁾ for these five trades ranges from almost double to four times higher than average injury rates for the construction industry in general. This is based on an analysis of 10 years of Workplace Safety and Insurance Board (WSIB) data by the Ministry and Infrastructure Health and Safety Association (IHSA).

General duties of workplace parties under the OHSA

Employers

Employers and supervisors must ensure compliance with the provisions of the OHSA and its regulations.

Key requirements for employers include:

- instruct, inform and supervise workers to protect their health and safety [Section 25(2)(a)]
- appoint competent persons as supervisors [Section 25(2)(c)]
- take every precaution reasonable in the circumstances for the protection of a worker [Section 25(2)(h)]
- prepare and review at least annually a written occupational health and safety policy, and develop and maintain a program to implement that policy if the workplace has six or more full-time employees [Section 25(2)(j)]
- post a copy of the occupational health and safety policy in the workplace, where workers will be most likely to see it [Section 25(2)(k)]

Supervisors

The OHSA also sets out specific duties for workplace supervisors. A supervisor must:

- ensure workers work in compliance with protective devices, measures and procedures required by the act and regulations [Section 27(1)(a)]
- ensure workers use or wear any equipment, protective device or clothing required by the employer [Section 27(1)(b)]

- advise workers of any potential or actual health or safety dangers known by the supervisor [Section 27(2)(a)]
- if required, provide workers with written instructions on the measures and procedures to be taken for the workers' protection [Section 27(2)(b)]
- take every precaution reasonable in the circumstances for the protection of workers [Section 27(2)(c)]

Health and safety considerations

Employers and supervisors should consider the following to ensure a healthy and safe workplace:

- Have work-related hazards been identified and specific measures taken to mitigate any risk of injury to workers? Ensure that adequate safety and emergency planning for the scope of work is done before starting the work.
- Have workers been adequately informed and instructed? Ensure that workers are instructed about the safety and emergency planning for the work.
- Will any work be performed from ladders, scaffolds, and work platforms? See the Provincial Labour Management Health and Safety Committee (PLMHSC) Guideline on Ladder Use in Construction.
- Have young workers been hired to work in the concrete forming, masonry, siding and built-up roofing trades? Ensure young workers are adequately trained and supervised at all times.
- Are surface conditions free from debris that may cause slips, trips and falls? Ensure that work surfaces are clear of debris and treated with sand if slippery.
- Are workers adequately supervised by a competent supervisor? Ensure that a competent supervisor is supervising the work when there are five or more workers on site.

Concrete forming

Some common hazards:

- Falls from unguarded edges
- Slips, trips and falls due to surface conditions
- Being struck by objects and equipment while stripping forms
- Inadequate site planning and supervision
- Inadequate training and instructions for workers

Safe practices include:

Good planning, instruction, communication and supervision are the key to preventing high-rise and low-rise forming injuries.

Protect form workers from fall hazards by:

- **ensuring all high-rise workers are protected by required guardrails or fall protection systems at all times, including guard rails along the edge and perimeter of concrete and an opening in the slabs**
- **ensuring workers limit the length of their travel-restraint systems so that they cannot reach a work position where it is possible to fall**
- **keeping horizontal, working surfaces free from debris and slippery conditions during high-rise and low-rise forming operations**
- **ensuring adequate measures and procedures are in place to prevent material from falling on workers**
- **ensuring scaffolds, ladders and elevating devices are used and maintained in accordance with the Construction Regulation and manufacturer's instructions and recommendations**

Siding

Hazards:

- **Falls resulting from the unauthorized setup and use of ladders**
- **Unsafe work platforms such as modified pump jack systems**
- **Material falling on workers**
- **Slips and trips due to poor surface conditions**

Safe practices include:

- **Workers must be provided with, and use, adequate fall protection if no suitable guardrails are reasonably possible to install**
- **Follow the recommended best practices on safe ladder use in the PLMHSC Guideline on Ladder Use in Construction**
- **Follow the manufacturer's instructions and recommendations on the safe setup, use and inspection of scaffold systems**
- **Ensure measures and procedures are in place to prevent workers from walking under a raised platform and to prevent material from falling on a worker**
- **Ensure surfaces remain free from debris and slippery conditions**

Masonry

Hazards:

- **Fall hazards between levels**
- **Slips, trips and falls**
- **Material falling on workers**

Safe practices include:

- **When erecting masonry scaffolds, follow the construction industry's best practices found in the**
- **PLMHSC Health and Safety Fall Protection Guideline on Masonry Scaffold Erection**
- **When using ladders, follow the best practices recommended in the PLMHSC Guideline on Ladder Use in Construction**
- **Keep scaffold platforms and other surfaces free from debris and slippery conditions**
- **Ensure adequate measures and procedures are in place to prevent workers from being struck by objects**

Built-up roofing

Some common Hazards:

- **Falls between levels**
- **Material falling on workers**
- **Slips, trips and falls**

Safe practices include:

- **Always use a fall-arrest or travel-restraint system attached to an adequate rooftop anchor**
- **When using ladders, follow the best practices recommended in the PLMHSC Guideline on Ladder Use in Construction**
- **Use barriers on flat roofs to make workers aware of the roof's edges**
- **Ensure appropriate measures and procedures are in place to prevent material from falling on workers**
- **Ensure surfaces are free from debris and slippery conditions**

More information about safety on construction projects

- **Ministry of Labour, construction safety**
- **Infrastructure Health & Safety Association**

- Workers Health and Safety Centre
- Workplace Safety and Insurance Board
- PLMHSC Guideline on Ladder Use in Construction
- Canadian Standards Association (CSA) standards referenced in occupational health and safety legislation

Call toll-free

Call 1-877-202-0008 any time to report critical injuries, fatalities or work refusals. Call 8:30 a.m.-5:00 p.m., Monday-Friday for general inquiries about workplace health and safety. Always call 911 in an emergency.

^[1] **The lost-time injury (LTI) rate is the number of injuries involving lost time at work per 100 workers.**

Fall Prevention:

Fixed Rail Ladder (FRL) Fall Protection System

- Issued: May 20, 2014
- Content last reviewed: May 2014

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer.

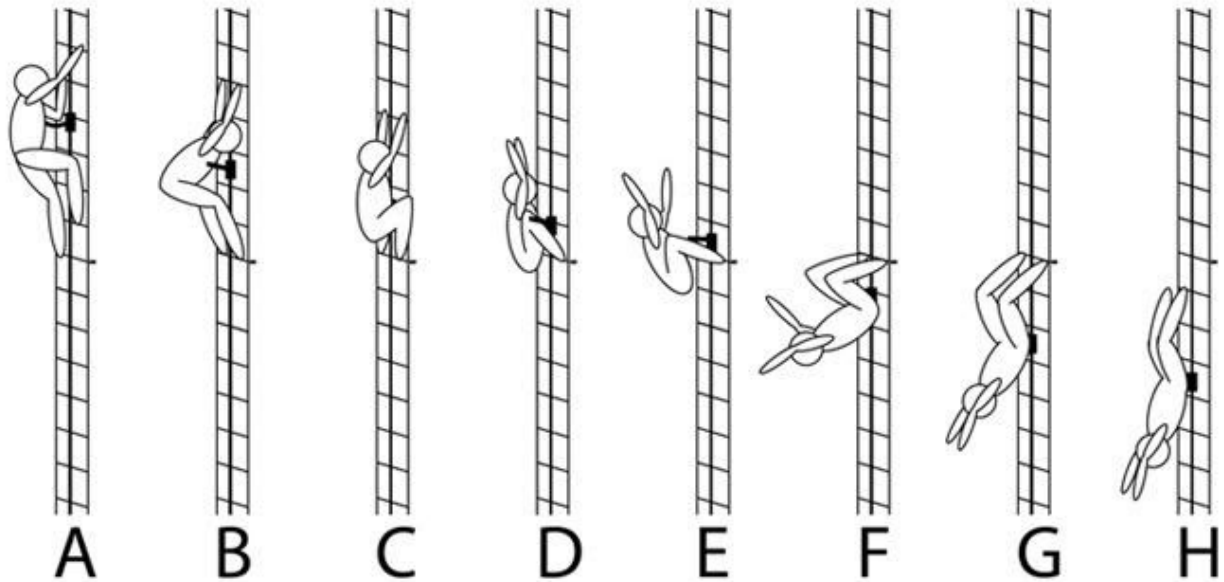
Hazard summary

A worker descending a vertical ladder on a water tower in 2014 was critically injured after falling five metres while properly using a Class Frontal-Fixed Rail Ladder (Class FRL) Fall Protection System. A Class FRL Fall Protection System is a type of vertical fall protection using a permanently installed metal rail anchoring system with an automatic fall arresting device called the "trolley" or "carriage".

The investigation revealed a weakness in the design of some Class FRL Fall Protection Systems, which may not adequately protect workers who fall backward or who squat and roll backwards into a fall while connected by a body harness to the trolley which slides along the vertical rail. If a worker leans back, the trolley's internal braking system can be pulled off the rail, allowing the trolley to slide down the rail. If a worker falls backwards or squats and rolls backward into a fall (as opposed to falling straight down or inwards towards

the ladder) the trolley may not lock, allowing a worker to fall freely. In the 2014 incident, the worker fell from a water tower ladder as shown in Figure 1.

Figure 1: How the water tower worker fell



- A. The worker is descending properly using the fall protection system.**
- B. The worker bends at the waist.**
- C. The worker's legs fold into a squat position while the worker's hands catch the next rung. The squat position allows the trolley to travel below the height of the worker's knees.**
- D. As the worker begins to roll backward their hands release from rung, and the tension in the trolley connection increases enough to remove all the slack out of the full body harness and slide the chest D-ring towards the waist.**
- E. This tension in the connection to the trolley forces the worker into a tight squatting position while rotating around the rung that the worker's feet are on.**
- F. The trolley connection remains in tension as the trolley travels below the rung that the worker's feet are on.**
- G. The connection to the trolley, now in tension between the worker's legs prevents the engagement of the braking mechanism that would stop the workers motion.**
- H. The worker, with back to the ladder, continues to fall head first while still attached to the fall protection system.**

In 2010, the Ministry of Labour published a similar Alert, Class Frontal Fixed Rail Ladder (FRL) Fall Protection System, Alert #26/0510, after a worker was injured after falling back, then down 20 metres from a ladder attached to a tower while using a Class FRL Fall Protection System. In 2010, the investigation determined that the Class FRL Fall Protection System might not adequately protect workers who fall backward in a standing position.

Locations and sectors

Class FRL Fall Protection Systems are used on vertical access ladders which normally do not have a cage, such as the ladders on communication towers, chimneys and water tanks (towers).

Precautions

Even though a Class FRL Fall Protection System may be currently certified to CSA standards and/or have a CSA standards stamp on the side of the trolley unit, this should not be interpreted to guarantee worker safety and employers should not rely on such a stamp. Further investigations into the system are needed to ensure the system protects against a squatting position/rollback fall or a fall backwards.

Class FRL Fall Protection Systems whose design characteristics require the connection between the worker and the trolley to be in tension and where the trolley remains disengaged regardless of the tension force applied should not be used. Employers must take reasonable precautions to protect workers in these circumstances. This may include using alternative fall protection or access systems, as appropriate, for the adequate protection of the health and safety of workers using vertical access ladders.

Employers who own or rent structures which have a Class FRL Fall Protection System installed must ensure that the Class FRL Fall Protection System is capable of protecting a worker in the case of a squatting position/rollback fall or a fall backwards. The Ministry recommends that employers contact the manufacturer to ensure that the particular Class FRL Fall Protection System is capable of protecting a worker from any type of fall (including a backward fall and falling from a squatting position) before it is used.

Note: This Alert replaces the Class FRL Fall Protection System, Alert #26/0510 published in 2010 by the Ministry of Labour.

Resources

For more information contact:

**Infrastructure Health and Safety Association
www.ihsa.ca**

Or contact the Ministry of Labour Health & Safety Contact Centre toll-free at 1-877-202-0008.

For further reference see also:

Ministry of Labour
Ontario.ca/labour
ServiceOntario e-laws
www.e-laws.gov.on.ca

Remember that while complying with occupational health and safety laws, you are also required to comply with applicable environmental laws.

Please photocopy Ministry of Labour Alerts, distribute them widely and post them where people will see them.

Prevent Slips, Trips and Falls in all Workplaces

- Issued: February 9, 2015
- Content last reviewed: February 2015
- See also: **Fall Hazards**

Slips, trips and falls are among the leading causes of injuries resulting in workers missing time at work in Ontario.

Preventing such injuries is a key goal of every safe and healthy workplace. Employers must:

- **Provide information and instruction to workers on slip, trip and fall hazards.**
- **Encourage workers to report slip, trip and fall hazards.**
- **Identify and assess the risk of job-specific slip, trip and fall hazards.**
- **Establish controls to eliminate or reduce workers' exposure to slip, trip and fall hazards.**
- **Ensure the control measures are working.**

This fact sheet is intended to help employers, workers and other workplace parties:

- **Understand slip, trip and fall hazards.**
- **Implement occupational health and safety policies.**
- **Develop and maintain programs to prevent workplace injuries.**

Common hazards

Consider the following slip, trip and fall hazards in your workplace:

- **slippery surfaces (oily or greasy, etc.)**
- **seasonal slip, trip and fall hazards (snow and ice)**
- **spills of wet or dry substances**
- **changes in walkway levels and slopes**
- **unsecured mats**
- **unsafe use of ladders**
- **poor lighting**
- **falls from beds of trucks, trailers or loads**
- **debris and cables in walkways**
- **smoke, steam or dust obscuring view**
- **lack of guardrails on mezzanines and balconies**
- **unsuitable footwear**
- **poorly maintained equipment (ladders, fall arrest, etc.)**

Controlling hazards

When a hazard has been identified, the employer must take every precaution reasonable in the circumstances to protect workers. Employers must provide information, instruction and supervision to workers to protect their health and safety.

Consider the following when establishing safe work practices for your workplace:

- **characteristics of physical work area**
- **weather conditions (snow, ice, rain, etc.)**
- **tasks performed**
- **workers' work practices**

Control measures for slip, trip and fall hazards may include:

Engineering controls

- **slip-resistant flooring and slip-resistant mats**
- **slope of surface (ramps, handrails)**
- **surface free of obstructions/holes**
- **appropriate drainage**

- adequate lighting (minimize glare and contrast)
- minimize environmental influences (blocking wind, preventing wet surfaces from icing, etc.)
- guardrails for raised floors, mezzanines and balconies
- sound footing for ladders and work platforms

Administrative controls

- provide wet floor signage
- train workers to prevent slips, trips and falls
- establish safe work practices
- communicate a procedure for reporting hazards
- ensure prompt maintenance
- design jobs to minimize tasks requiring excessive pushing/pulling, line-of-sight obstruction and over-reaching
- ensure shovels, mops and buckets are readily available
- correct poor work practices
- conduct Joint Health and Safety Committee monthly inspections
- review slips, trips and same-level fall incidents

Safe work practices

- clean up spills promptly
- remove debris, snow and ice
- routinely clean floors with appropriate solutions
- use two hands to climb\descend ladders
- maintain three-point contact on ladders
- clean castors on wheeled carts
- remove clutter from walking surfaces
- clean grease build-up from slip resistant mats

Personal Protective Equipment

- Select appropriate footwear based on a risk assessment of the job task.
- Wear proper-fitting footwear that may include slip-resistant soles.
- Properly select, use and maintain fall protection equipment.

All workers have the right to work in a safe and healthy environment. A strong workplace health and safety culture requires all workplace parties to adhere to

the Occupational Health and Safety Act (OHSA) and its regulations. This includes paying constant and appropriate attention to workplace health and safety issues.

More information

- Ontario.ca/healthandsafetyatwork
- Ontario.ca/stopfalls
- [Ontario's Health and Safety Associations](#)
- [Canadian Centre for Occupational Health and Safety](#)

Call 1-877-202-0008 any time to report critical injuries, fatalities or work refusals. Call between 8:30 a.m. to 5 p.m., Monday to Friday for general inquiries about workplace health and safety. In an emergency, always call 911.

Workers Falling Through Skylights

- Issued: February 12, 2013
- Content last reviewed: February 2013

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer.

Hazard summary

Falls from heights can occur when working near inadequately guarded rooftop skylights or when other fall protection measures and procedures have not been implemented at a workplace. The falls can result in critical injuries or even death.

Workplace parties – including building owners, constructors, employers, supervisors, and workers – may not fully realize how serious fall hazards can be when working on, around or near the edge of a skylight.

Workers should not be assigned to work near a skylight without appropriate fall protection measures and procedures to ensure their safety.

Background

Workers may work on roofs:

- during new construction or installation projects
- while performing structural repairs

- to decommission a building
- to service or maintain skylights, windows, heating, ventilation and air-conditioning equipment, lighting fixtures, microwave dishes, security cameras, two-way radio antennas and solar panels, etc.

Other related construction or maintenance activities can also take place on or from roof surfaces where there are skylights, including snow removal and exterior facade remediation, etc.

The Ministry of Labour has investigated a number of serious critical injuries and deaths resulting from workers falling through skylights:

Date	Event Summary
February 2012	A worker was backing up while installing solar panels on a roof when the worker plunged 6 meters (20 feet) onto a concrete floor below and died. The worker had fallen on a plastic-domed skylight which broke under his weight.
January 2011	A worker was walking backwards while doing roof repairs when the worker, tripped and landed on a plastic-domed skylight which broke under the impact. The worker plunged to the concrete floor below and died.
September 2008	A worker was backing up while helping to move a wheelbarrow when the worker tripped and fell onto a plastic-domed skylight. The skylight broke as a result of the impact and the worker fell to the concrete floor below and died.
June 2006	A worker sat on a skylight which broke under the worker's weight. The worker fell about 14 feet and suffered serious injuries. It was the worker's first day on the job.
June 2004	A worker was cleaning debris from a roof near an uncovered skylight opening when the worker fell through the opening onto the concrete floor 5.8 meters (19 feet) below. The worker suffered serious injuries.
January 2004	A roofing worker sat on a snow covered skylight which gave way under the worker's weight. The worker fell about 3 meters (10 feet) and received serious injuries.
September 2002	A construction worker fell through a plastic skylight, plunged 7.6 meters (25 feet) and died.
July 1999	A worker was repairing curbing around a skylight on the roof of an industrial building. The worker was walking backwards while

	dragging a ladder when the worker fell through the skylight and died.
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Table 1: Event summary for workers falling through skylights

Skylight hazard

Skylights are made of various products and transparent materials, including polycarbonates, glass, plastics or some other combination of transparent materials.

Skylights are normally designed to withstand forces such as the weight of snow; however, they can fail under the weight of a worker. This can result in a worker falling through the skylight to a surface below.

A plastic skylight's composition and strength may deteriorate over time due to the effects of sunlight and atmospheric contaminants. Unless a skylight's ability to support all loads to which it may be subjected (including the impact of a falling worker) can be determined, it must be treated as a fall hazard.

Each sector regulation under the Occupational Health and Safety Act (OHSA) sets out specific regulatory requirements to protect workers from fall hazards. Constructors, employers, supervisors and workers, among others, have an obligation to know and comply with the regulations that apply to their workplaces.

For workplaces where sector regulations do not generally apply, the employer is required to take every precaution reasonable in the circumstances for the protection of a worker from the hazard of falling (OHSA Section 25(2)(h)).

Controls

The following minimum fall protection measures and procedures are recommended to protect workers who may be exposed to the hazard of falling when working on or near skylights on rooftops of buildings or other structures:

- ensure a risk assessment and job hazard analysis is performed before any work takes place. The analysis should answer the following questions:
 - Are skylights installed at the worksite?
 - In what condition are the skylights?

- Can the skylights support the impact of a falling worker?
- Are the skylights suitably guarded or shielded to prevent a worker from falling through?
- Is there space to position (install) temporary guardrails or barriers around or over the skylights?
- establish and monitor the implementation of a fall protection program. Make continuous improvements, as required, based on knowledge, expertise and practical experience
- limit rooftop access by implementing a roof permit system in which only authorized people and competent workers can gain access to the roof, and
- ensure all workers who go up on a roof are trained to recognize, evaluate and control all fall related hazards.

Workers using fall protection equipment must be adequately trained in its use and adequately supervised by a competent person. Worker training must include:

- the OHSA and regulations applicable to the scope of work to be performed
- recognition of workplace hazards specific to the work location
- proper procedures for installing/erecting, maintaining, disassembling, inspecting and using any fall protection systems or equipment
- the method for reporting problems with, or obtaining guidance on, any fall protection issues that are encountered, and
- any written procedures to be followed in the event of an emergency.

Specific controls for skylights:

- Every skylight must be considered to be a fall hazard when workers are on a roof. The only exception is if the employer has obtained an opinion from an Ontario-licensed Professional Engineer that the skylight can withstand any load to which it may be subjected and is not likely to endanger a worker.
- A Fall Protection Program must be established and implemented to protect workers who work near a skylight and may include the following fall protection measures:
 - temporary guardrails or barriers around a skylight to prevent a worker from falling through or stepping/walking on a skylight
 - a temporary skylight screen, grate or cover of material capable of handling any load imposed by a worker

- travel restraint systems to prevent a worker from stepping on or falling onto the skylight
- a fall restricting system designed to limit a worker's free fall.

Legislative/Regulatory References

- The OHSA covers all provincially regulated workplaces. It sets out requirements for workplace parties, including: building owners, constructors, employers, supervisors and workers. Specific sector regulations apply to construction projects, industrial establishments, mining plants and health care and residential facilities.
- Employers and supervisors must take every precaution reasonable in the circumstances for the protection of workers as required by OHSA Sections 25(2)(h) and 27(2)(c) respectively. Employers must provide information, instruction and supervision to a worker to protect his or her health and safety, as required by OHSA Section 25(2)(a). They must also acquaint a worker or his or her supervisor with any work hazards, as required by OHSA Section 25(2)(d).
- Employers must ensure equipment, materials and protective devices they provide are maintained in good condition (OHSA Section 25(1)(b)) and used as required (Section 25(1)(d)).
- Supervisors must ensure workers comply with requirements for protective devices, measures and procedures (OHSA Section 27(1)(a) and the regulations).
- Supervisors must ensure workers use or wear any equipment, protective device or clothing required by the employer (OHSA Section 27(1)(b)).
- Requirements must be complied with for worker training and the use of any protective clothing, equipment or devices provided as well as the requirement for a fall protection system when workers are exposed to a hazard of falling more than three meters (Sections 10 and 13 of the Health Care and Residential Facilities Regulation and Sections 79 and 85 of the Industrial Establishments Regulation).
- Under the Regulations for Construction Projects, Section 26 must be complied with if a worker is exposed to certain fall hazards. This applies to situations where the load capacity of a skylight is unknown at a project and/or a worker may be working on or near the skylight.

Training and services

For assistance in developing occupational health and safety policies and programs or to obtain training for you and your staff, contact the appropriate health and safety association:

Infrastructure Health & Safety Association (IHSA)

Training and services for construction, electrical and utilities, aggregates, natural gas, ready-mix concrete and transportation.

Toll-free: 1-800-263-5024 | www.ihsa.ca | Twitter: [@IHSAnews](https://twitter.com/IHSAnews)

Public Services Health & Safety Association (PSHSA)

Training and services for: hospitals, nursing and retirement homes, residential and community care, universities and colleges, school boards, libraries and museums, municipalities, provincial government and agencies, police, fire and paramedics and First Nations.

Toll Free: 1-877-250-7444 | www.pshsa.ca | Twitter: [@PSHSAca](https://twitter.com/PSHSAca)

Workplace Safety North (WSN)

Training and services for (province wide): forestry, mining, smelters, refineries, paper, printing and converting.

Toll-free (Ontario): 1-888-730-7821 | www.workplacesafetynorth.ca | Twitter: [@WSN_News](https://twitter.com/WSN_News)

Workplace Safety & Prevention Services (WSPS)

Training and services for agriculture, manufacturing and service sectors.

Toll-free: 1-877-494-9777 | www.wsps.ca

Occupational Health Clinics for Ontario Workers (OHCOW)

OHCOW provides comprehensive occupational health services to workers concerned about work-related health conditions and to workers, unions and employers who need support to prevent these health conditions from developing. OHCOW services are free of charge.

Toll-free: 1-877-817-0336 | www.ohcow.on.ca | Twitter: [@OHCOWclinics](https://twitter.com/OHCOWclinics)

Workers Health & Safety Centre (WHSC)

As Ontario's designated health and safety training centre, the WHSC provides training for workers, their representatives and employers from every sector and region of the province.

Toll-free: 1-888-869-7950 | www.whsc.on.ca | Twitter: [@WHSCtraining](https://twitter.com/WHSCtraining)

More information

[Service Ontario e-Laws](#)

Your local Ontario Ministry of Labour office

Call toll-free

Call 1-877-202-0008 any time to report critical injuries, fatalities or work refusals.

Call 8:30 a.m. to 5 p.m. Monday to Friday for general inquiries about workplace health and safety. Always call 911 in an emergency.

Alert: Worker Falls Through Skylight

- Issued: November 2000
- Content last reviewed: January 2012

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer.

Hazard Summary

A worker, repairing the curbing around skylights on the roof of an industrial building, fell through the Plexiglas skylight and sustained fatal injuries. The accident occurred in July 1999.

The Ministry of Labour's (MOL) investigation found that when the worker completed the repairs, he went to the edge of the roof to retrieve a ladder. The worker was walking backwards, dragging the ladder, when he fell through the skylight.

Recommended Precautions

- **The MOL recommends that temporary barriers or guardrails be placed around skylights when workers are working on the roof.**
- **The MOL recommends obtaining information from the building owner or a Professional Engineer about whether or not the skylight is designed to support the weight of one or more people.**
- **Owners of buildings with skylights, and employers of workers who do maintenance or construction on these roofs, must provide the workers with information, instruction and supervision relating to associated hazards as required by section 25(2)(a) of the Occupational Health and Safety Act.**
- **Section 26 of Ontario Regulation 213/91 (Regulation for Construction Projects) requires that an opening in a roof to which a worker has**

access be protected by a guardrail or covered with securely fastened planks. This applies to situations where the skylight has been removed to conduct built-up roof repairs or prior to the skylight being installed on new construction.

Remember that while complying with occupational health and safety laws, you are also required to comply with applicable environmental laws.

Permission is granted to photocopy Ministry of Labour alerts. Please distribute them widely and post them where people will see them.

Program standard for working at heights training

What to include in an approved training program for working at heights.

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Acknowledgements

The members of the Working at Heights Training Program Standard Development Group contributed their time and expertise to this Standard. The Development Group was tasked with developing a standard which outlines the learning outcomes and other requirements for training programs designed for Ontario workers.

The Committee included members from the following organizations:

- Blair Allin, International Brotherhood of Boilermakers
- Ed Braithwaite, C&C Enterprises Electrical Construction
- Kevin Bryenton, Ironworkers District Council of Ontario
- Mike Cuzzetto, Loblaw Companies Limited
- Glen Drewes, International Brotherhood of Electrical Workers
- Jamie Hansen, Unifor
- Jim LaFontaine, Dufferin Construction
- Janice Klenot, United Food and Commercial Workers
- Daniel Rajschmir, IPEX Management
- Gordon Sproule, Sproule Speciality Roofing
- Dave Trumble, Power Workers' Union
- Rick Van Ihinger, Clifford Masonry

This training program standard will be reviewed at least every five years. This Training Program Standard outlines the learning outcomes and other requirements that are expected of a training program, in order for it to be approved by the Chief Prevention Officer (CPO).

CPO approval is granted to those programs that meet the Training Program Standard after a successful assessment and review of the program submitted. While reasonable efforts are made to ensure that the criteria of the Training Program Standard are met, it is the responsibility of employers to ensure compliance with the training requirements under the Occupational Health and Safety Act. In determining what rights or obligations a party may have under the legislation, reference should always be made to the official version of the Act and the regulations.

Scope

Section 7.1 of the Occupational Health and Safety Act (OHSA) provides the Chief Prevention Officer (CPO) the authority to establish standards for training programs required under the OHSA and its regulations, and to approve training programs which meet those standards.

Section 7.2 of the OHSA provides the CPO with the authority to establish standards which must be met in order for a training provider to be approved to deliver one or more approved training programs.

The Working at Heights Training Program Standard outlines the requirements that must be met by training programs seeking approval by the CPO. It should be read in conjunction with the Working at Heights Training Provider Standard, which sets out the requirements that a provider must meet to be considered for approval by the CPO. Working at heights training programs which contain eLearning components must also meet the CPO's eLearning Instructional Design Guidelines.

In order to be approved by the CPO to deliver an approved working at heights training program, training providers must be able to demonstrate they meet both the Working at Heights Program and Provider standards.

1. Introduction

This Working at Heights Training Program Standard sets out the requirements that must be met by training programs submitted to the Chief Prevention Officer (CPO) for approval. It should be read in conjunction with the Working at Heights Training Provider Standard, which sets out the requirements that must be met by training providers seeking approval by the CPO to deliver an approved working at heights training program. Working at heights training programs which contain eLearning components must also meet the CPO's eLearning Instructional Design Guidelines. This Working at Heights Training Program Standard is designed to support consistent and quality training for workers in the Province of Ontario, with respect to core competencies required for working at heights.

The training programs based on this standard could be customized to address the specific hazards of a sector and the common equipment and machinery used in that sector, as long as the learning outcomes outlined in this standard are achieved.

2. Purpose

The purpose of the Working at Heights Training Program Standard is to establish a mandatory minimum standard for high quality and consistent training for workers who work at heights in the Province of Ontario. The purpose of a working at heights training program that meets the requirements set out in this standard is to:

- 1. Strengthen workplace safety culture by elevating the profile and importance of preventing falls from heights.**
- 2. Provide workers who may be exposed to the hazard of falling with adequate knowledge about fall hazards and general safety practices to work safely at heights.**
- 3. Provide workers who use personal fall protection equipment with sufficient knowledge about its purpose and use; and**
- 4. Reduce the number of fall-from-heights incidents, injuries and fatalities.**

3. Overview

The Working at Heights Training Program Standard has a modular format to allow for core theory training to be completed separately from practical training elements. There are two modules: Working at Heights Basic Theory and Working at Heights Practical.

3.1 Working at heights basic theory module

The Working at Heights Basic Theory module contains the following:

- 1. Rights and responsibilities related to working at heights under the Occupational Health and Safety Act**
- 2. General hazard recognition for working at heights,**
- 3. Hierarchy of controls,**
- 4. Safety procedures for warning methods and physical barriers,**
- 5. Safety procedures for ladders and similar equipment; and**
- 6. An introduction to personal fall protection equipment.**

3.2 Working at heights practical module

The Working at Heights Practical module contains the following:

- 1. Barriers and safety nets**
- 2. Personal fall protection equipment,**
- 3. Anchor points,**
- 4. Work positioning systems, work access and platforms; and**
- 5. Rescue planning.**

4. Requirements

The Working at Heights Basic Theory module must be successfully completed before the Working at Heights Practical module is taken. Employers shall supplement any training program that meets the requirements of this training program standard with additional information, instruction and training in workplace-specific policies and procedures and workplace-specific equipment related to working at heights. In addition, employers must ensure that they meet the training and other requirements in the Occupational Health and Safety Act and its regulations.

5. Design

The training program must be designed to allow learners to achieve the learning outcomes set out in this standard for the Working at Heights Basic Theory module and the Working at Heights Practical module, if applicable. The training program must meet the following criteria:

1. Compliance with adult learning principles:

- 1. Ensuring learners know why they need to learn specific content, its relevance to them and their workplace**
 - 2. Relating learning to training participants' own experience in situations that simulate actual application in the workplace**
 - 3. Challenging training participants using a variety of activities that allow opportunity for participation, feedback and interaction**
 - 4. Recognizing limits of attention span, and various ways that adults learn, and**
 - 5. Using realistic activities and tools to support transfer of learning to the workplace.**
- 2. Language and literacy level appropriate for the learners.**
 - 3. Content accurate, current, and all legal and technical information is referenced and verified.**
 - 4. Use of a variety of teaching aids such as audio-visuals, equipment, safety devices and measuring/monitoring equipment.**
 - 5. Learner materials follow principles of instructional writing and good graphic design, and**
 - 6. Compliance with the requirements of the Occupational Health and Safety Act and its regulations.**

6. Delivery mode

Regardless of the delivery mode, all approved Working at Heights training programs must meet the requirements of this standard and the delivery mode must support the learner's ability to attain the applicable learning outcomes.

6.1 Face-to-Face learning

For the Working at Heights Basic Theory module, the maximum ratio of learners to instructor will be twenty-four (24) to one (1). For the Working at Heights Practical module, which includes hands-on demonstration of some of the learning outcomes, the maximum ratio of learners to instructor will be twelve (12) to one (1).

The following are the minimum hours for training delivery:

1. Working at Heights Basic Theory module — 3 hours.
2. Working at Heights Practical module — 3.5 hours

Timing for delivery of this training program may be extended for various reasons such as the amount of equipment available for demonstration of learning outcomes, instructor experience, and/or the learning needs of the training participants.

6.2 eLearning and blended learning

eLearning is only an acceptable delivery method for the Working at Heights Basic Theory module if it includes provisions for interactivity with a qualified instructor. eLearning is not an acceptable delivery method for the Working at Heights Practical module.

Program components delivered by eLearning must meet the CPO's eLearning Instructional Design Guidelines.

When eLearning is combined with face-to-face training, the result is referred to as blended learning. For a blended learning training program, the two sections of the course must be well integrated. For blended learning, evaluation must support and validate that the learning outcomes covered by the eLearning portion of the course have been adequately met by the learner.

6.3 Distance learning

All distance learning must include plans for interactivity with a qualified instructor.

For the Working at Heights Basic Theory module, distance learning such as training via a live video link is an acceptable delivery method, but distance learning is not acceptable for the Working at Heights Practical module.

7. Resource materials

The following resource materials for instructors and learners must be developed.

7.1 Learner materials

Learner materials must:

1. Clearly describe learning objectives, agenda, training content and evaluation/testing.

2. Clearly indicate the date and version number of the materials, and
3. Include, at a minimum:
 1. Terms and definitions
 2. Worksheets for learning activities, exercises, role plays, and case studies
 3. Job aids, tools and templates;
 4. Excerpts from the Occupational Health and Safety Act and its regulations regarding working at heights that are relevant to the sectors in which the learners work; and
 5. Participant manual.

7.2 Instructor materials

Instructor materials must:

1. Clearly describe learning outcomes and training content
2. Clearly describe instructional methods, learning activities, and lesson plan timing
3. Clearly indicate the date and version number of the materials, and
4. Include, at a minimum:
 1. Instructor manual and lesson plans with detailed step-by-step instructions to guide the instructor through the lessons, including what materials will be used to deliver the topic, the instructional methods, the learning activities, timing, and equipment needed
 2. Audio-visual resources
 3. Presentation materials
 4. Answer sheets for the learning activities, exercises, role plays, case studies, and tests
 5. Evaluation tools
 6. A copy of the Occupational Health and Safety Act
 7. A copy of the regulations that are relevant to the sectors in which the learners work, and
 8. Manufacturers' instructions for the equipment used by the instructor in the delivery of the approved training program.

8. Equipment

For the Working at Heights Practical module, learners must have hands-on, practical experience and must be trained on the proper use, care and limitations of the personal protective equipment (PPE) listed below. The PPE provided must comply with or exceed equipment specific National Standards of Canada / Canadian Standards Association technical standards, as applicable. The equipment must also comply with the

requirements of the Occupational Health and Safety Act and regulations as applicable.

8.1 Equipment for Demonstration of Learning Outcomes

The equipment listed below must be used for the delivery of the Working at Heights Practical module. The ratio of equipment available to learner shall be 1:3 (i.e. at least four sets of equipment for 12 learners).

- Type A harnesses with tongue buckles (variety of sizes);
- Type A harnesses with mating buckles (variety of sizes);
- Single leg lanyards (with energy absorber);
- Lifelines with snap hooks adequate for learning purposes;
- Rope grabs;
- Carabiners; and
- D-bolt anchors.

8.2 Other equipment

The equipment listed below must be used in the delivery of the Working at Heights Practical module so that learners become familiar with the look and function of this equipment. The ratio of equipment available to learner shall be at least 1:12:

- Non-Type A harnesses (such as ADELP harness and cross-over harness);
- Various lanyards (such as with no energy absorbers, with various levels of energy absorbers, Y lanyard, tie-back lanyard, Type 1 self-retracting lanyard);
- Various rope grabs;
- Various lifelines (such as with carabiner and thimble);
- Leg stirrups;
- Various hooks (such as snap hook with swivel, rebar hook); and
- Various anchors (such as cross-arm anchor connector, one-time use roof anchor, disposable concrete anchor).

8.3 Damaged equipment

The equipment listed below must be used in the delivery of the Working at Heights Practical module so that learners are able to identify and inspect this equipment for damage. The ratio of equipment available to learner shall be at least 1:12 :

- Type A harness (with tongue and mating buckles); and
- Single leg lanyards (with and without energy absorbers).

9. Learning outcomes

The training program must meet the following learning outcomes:

Employers will need to supplement any training program that meets the requirements of this training program standard with additional information, instruction and training in workplace-specific policies and procedures and workplace-specific equipment related to working at heights.

9.1 Working at heights basic theory module

9.1.1 Rights and responsibilities

By the end of this session learners will be able to:

- 1. Identify the roles and responsibilities of the employer, constructor (if applicable), supplier, supervisor and worker, with respect to working safely at heights;**
- 2. Describe three worker rights with regards to working at heights and how a worker would take steps to exercise them;**
- 3. Explain that all workers have a duty to report to their supervisor or employer any fall hazard or defect in fall prevention/protection equipment of which they are aware and which may endanger themselves or another worker;**
- 4. Explain that an employer is prohibited from threatening to fire or dismiss workers for exercising their health and safety rights with respect to working safely at heights, or for asking their employer or supervisor to do what the Occupational Health and Safety Act requires;**
- 5. Explain that the Ministry of Labour enforces the Occupational Health and Safety Act and its regulations, and that Ministry inspectors may make orders, requirements and may initiate prosecutions, where appropriate, for non-compliance with requirements for working safely at heights; and**
- 6. Explain the types of help and resources available through the Ministry of Labour's website and the purpose of the Ministry of Labour's 1-877-202-0008 telephone line.**

9.1.2 Identification of the hazards of working at heights

By the end of this session learners will be able to:

- 1. Recognize hazards of working at heights;**

2. Recognize other hazards where workers are exposed to the hazard of falling from heights (i.e. into water, machinery, electrical equipment, hazardous substances or objects);
3. List typical accidents and injuries related to working at heights in the workplace;
4. Identify the frequency, severity and consequences of injuries and fatalities due to falls from heights (morale, family, society, reputation); and
5. Explain the role of safe work plans and procedures in identifying hazards of falling from heights.

9.1.3 Eliminating or controlling the hazards of working at heights

By the end of this session learners will be able to:

1. Explain the hierarchy of controls (such as elimination, isolation, engineering, substitution, administrative or), related to working at heights;
2. Utilizing realistic workplace scenarios (for barriers, access equipment, positioning equipment and Personal Protective Equipment), use the hierarchy of controls to choose the preferred method of working safely at heights; and
3. Explain the limitations of personal protective equipment.

9.1.4 Warning methods and physical barriers

By the end of this session learners will be able to:

1. Describe the types of warning methods (signs and bump lines) and physical barriers (fencing, guard rails, protective coverings) and their appropriate use;
2. Identify the characteristics and appropriate uses of permanent and temporary guard rails; and
3. Explain which precautions are necessary when relocating or removing guardrails.

9.1.5 Ladders and similar equipment

By the end of this session learners will be able to:

1. Identify a minimum of three types of portable ladders and similar equipment and their limitations;
2. Explain the advantages and disadvantages of ladders and similar equipment for working at heights;

3. Identify that there are different regulatory requirements for ladders in different sectors and that these requirements may place restrictions on the type of work which may be performed for working at heights from a ladder;
4. Identify and assess situations in which ladders could be used safely for working at heights, and when alternative means of access would be more appropriate;
5. Explain how to properly inspect and care for ladders and similar equipment;
6. Describe how to safely position and use ladders; and
7. Explain that if you are asked to use a ladder or similar equipment at your workplace, you may need additional workplace specific information, instruction, or training by your employer.

9.1.6 Personal fall protection equipment

By the end of this session learners will be able to:

1. Explain when a travel restraint system, fall restricting system or fall arrest system would be required and the essential components of each; and
2. Identify that more extensive training is essential to safely use a travel restraint system, fall restricting system or fall arrest system.

9.2 Working at heights practical module

9.2.1 Barriers and other fixed equipment

By the end of this session learners will be able to:

1. Identify situations in which bump lines, barriers, guardrails and safety nets would be appropriate;
2. Identify the regulatory requirements (if any) for bump lines, barriers, guardrails and safety nets;
3. Identify the limitations of bump lines, barriers, guardrails and safety nets; and
4. Identify the specific requirements for strength and design of temporary guard rails.

9.2.2 Personal fall protection equipment

By the end of this session learners will be able to:

1. Discuss the limitations and the appropriate application of travel restraint, fall restricting and fall arrest systems;

2. Identify the fall protection regulatory requirements (where applicable) for travel restraint, fall restricting and fall arrest systems;
3. Discuss the fundamental components of travel restraint, fall restricting and fall arrest systems;
4. Determine the fall distance to prevent a worker from striking the ground or an object below;
5. Discuss the force required to deploy a shock absorber;
6. Define and explain the effects on the human body of "bottoming out", the pendulum effect, and suspension trauma;
7. Describe the steps required for the proper set up, use, maintenance and storage of travel restraint and fall arrest equipment (harness, lanyard, lifeline, rope grab, snap and grab hooks, carabiners);
8. Demonstrate an ability to inspect and identify deficiencies in industry-standard personal fall arrest equipment;
9. Demonstrate how to appropriately "don" and "doff" (i.e. put on and take off) industry-standard personal fall arrest equipment, including harness and lanyard;
10. Describe how to protect horizontal and vertical lifelines while in use;
11. Describe the appropriate set-up and use of a rope grab for personal fall arrest systems and ladder use;
12. Explain methods to maintain tie-off at all times to an anchor point when changing anchor points; and
13. Describe possible situations where you may need additional workplace specific information, instruction or training by your employer if you are asked to use fall protection equipment in your workplace.

9.2.3 Anchor points

By the end of this session learners will be able to:

1. Explain what an anchor point is;
2. Discuss the appropriate location and use of anchor points;
3. Provide examples of appropriate and inappropriate anchor points;
4. Identify the consequences of using inappropriate items as anchor points;
5. Illustrate the differences between permanent anchors, temporary fixed supports, and existing structural features as anchor points;
6. Discuss the importance of manufacturer's recommendations when installing new anchor points and, where necessary, approval of anchor points by a professional engineer; and
7. Explain the importance of asking for information before using new anchor points.

9.2.4 Work access equipment, and platforms

By the end of this session learners will be able to:

- 1. Using the hierarchy of controls, identify the different types of equipment that may be available to safely perform a variety of tasks at heights. This includes Powered Elevating Work Platforms (PEWPs), scaffolds, ladders, suspended access equipment, and boatswain's chairs. For ladders, regulatory restrictions and criteria for safe use and positioning shall be identified;**
- 2. Provide examples of the types of personal fall protection equipment that is needed to safely work at heights on work access equipment and platforms; and**
- 3. Explain that if you are asked to use work access equipment, platforms, or similar equipment in your workplace, you may need additional workplace specific and/or equipment specific information, instruction or training.**

9.2.5 Rescue planning

By the end of this session learners will be able to:

- 1. Explain the purpose of a working at heights fall rescue plan;**
- 2. Identify key components of a fall rescue plan;**
- 3. Discuss the roles and responsibilities of employers, supervisors and workers in regards to a fall rescue plan and emergency procedures; and**
- 4. Explain that each project where workers rely on fall protection equipment (such as PPE and safety nets) must have a site specific rescue plan and that information, instruction or training on the site specific rescue plan is necessary.**

10. Learner evaluation

The training program must include a plan for learner evaluation which meets the requirements below. There must be a variety of evaluation methods available to the instructor and/or evaluator, which are appropriate to the learning outcomes.

10.1 Written tests and alternative evaluation methods

- 1. There must be a written test either at the end of each module or at the end of the whole training program. The purpose of the written test is to verify that the key concepts have been understood by the learner. The learner must obtain a minimum of 75% in order to successfully complete the training program. After a learner has successfully completed the test, the**

evaluator must review incorrect answers with the learner in order for him or her to successfully complete the training program.

2. For learners with language, literacy or accommodation needs, alternative evaluation methods to written tests may be employed to verify that key concepts have been understood by the learner. These alternative evaluation methods must be clearly outlined in the evaluation plan and the corresponding results must be documented by the evaluator.

10.2 Evaluation of demonstration learning outcomes

1. Learning outcomes requiring demonstration (sections 9.2.2(h), 9.2.2(i), 9.2.2(l)) must be performed satisfactorily in order to successfully complete the Working at Heights Practical module.
2. For learners with language, literacy or accommodation needs, alternative evaluation methods may be employed to verify satisfactory demonstration of learning outcome by the learner. These evaluation methods must be clearly outlined in the evaluation plan and the corresponding results must be documented by the evaluator.

11. Validity and refresher training

Learners who have successfully completed an approved Working at Heights Training Program must periodically refresh their training in order to maintain its validity. This supports learners in maintaining their foundational knowledge and skills for working safely at heights.

11.1 Validity of the training program

Successful completion of a working at heights training program includes the completion of both the Working at Heights Basic Theory module (section 9.1) and the Working at Heights Practical module (section 9.2) in accordance with the criteria set out in this standard and the Working at Heights Training Provider standard. Working at heights training remains valid for a period of three years from the date of successful completion.

11.2 Refresher training

Refresher training can be achieved by successfully completing the Working at Heights Practical module (section 9.2) in accordance with the criteria set out in this Standard and the Working at Heights Training Provider Standard. Successful completion of the refresher training will re-validate a learner's working at heights training for another three year period from the date of successful completion of the refresher.

Learners must have previously successfully completed both modules of an approved Working at Heights training program to be eligible for refresher training.

Appendix A: Glossary of terms — general

Blended learning

Describes the practice of using several training delivery mediums in a single training program. It typically refers to the combination of classroom instruction and eLearning.

Distance learning

An educational situation in which the instructor and students are separated by time, location, or both. Education or training courses are delivered to remote locations via synchronous or asynchronous instruction (ASTD definition).

E-Learning (electronic learning)

A term covering a wide set of applications and processes that includes web-based learning, computer-based learning, virtual classrooms, and digital collaboration.

Face-to-face training

Usually refers to traditional classroom training, in which an instructor teaches a course to a room of training participants. The term is used synonymously with on-site training and classroom training and instructor-led training (slightly modified from ASTD definition).

Module

A unit of instruction that can be measured, evaluated for change, assembled to form complete courses, or bypassed as a whole, and usually is intended to teach one or a group of skills or areas of knowledge (slightly modified from ASTD definition).

Evaluator

A person who evaluates learners.

Instructor

A person who delivers training programs.

Qualification

A skill, quality, or attribute that makes somebody suitable for a job, activity or task.

Subject matter expert (SME)

A person who has extensive knowledge and skills in a particular subject area (ASTD definition).

Appendix B: Glossary of terms — working at heights standards

Fall arrest system

An assembly of components joined together so that when the assembly is connected to a fixed support, it is capable of arresting a worker's fall.

Fall restricting system

A type of fall arrest system that has been designed to limit a worker's fall to a specified distance.

Fixed support

A permanent or temporary structure or a component of such a structure that can withstand all loads and forces the structure or component is intended to support or resist and is sufficient to protect a worker's health and safety, and includes equipment or devices that are securely fastened to the structure or component.

Full body harness

A device that can arrest an accidental vertical or near vertical fall of a worker and which can guide and distribute the impact forces of the fall by means of leg and shoulder strap supports and an upper dorsal suspension assembly which, after the arrest, will not by itself permit the release or further lowering of the worker.

Guardrail system

An assembly of components joined together to provide a barrier to prevent a worker from falling from the edge of a surface.

Safety belt

A belt worn around the waist of a worker and all the fittings for the belt appropriate for the use being made of it.

Safety factor

The ratio of the failure load to the specified load or rated load.

Safety net

A safety net that complies with section 26.8 of Ontario Regulation 213/91, and is located and supported in such a way that it arrests the fall of a worker who may fall into it without endangering the worker.

Travel restraint system

An assembly of components capable of restricting a worker's movement on a work surface and preventing the worker from reaching a location from which he or she could fall.

Work belt

A belt that has a back support pad and a connecting hook at the front and that is capable of supporting a worker.

Related Information

Provider standard for working at heights training

Apply to be a working at heights training provider

Hazardous Substances:

Asbestos: FAQs

- Issued: August 2011
- Content last reviewed: August 2011

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer.

- How are workers protected from asbestos exposure in Ontario?
- What are the regulatory requirements relevant to the potential exposure to asbestos caused by tornado damaged buildings where asbestos containing materials may be present?
- Does the Regulation 278/05 apply whether or not it is known or suspected that ACM will be encountered?
- How is the Regulation applied to construction projects?
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- What is the Asbestos Management Program in Buildings?
- What are the requirements to control workers exposure to asbestos exposure?
- Where can I find more information on regulatory requirements to control workers exposure to asbestos exposure?
- I think I might have asbestos in my building, how can I get it tested?

How are workers protected from asbestos exposure in Ontario?

Under the Occupational Health and Safety Act (OHSA), asbestos is prescribed as a designated substance and has two designated substance regulations. Regulation 490/09 is applicable to industrial and mining establishments and Regulation 278/05 is applicable to construction projects and in building and repair operations.

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What are the regulatory requirements relevant to the potential exposure to asbestos caused by tornado damaged buildings where asbestos containing materials may be present?

Regulation 278/05, Asbestos on Construction Projects and in Buildings and Repair Operations, applies to every building in which Asbestos Containing Material (ACM) is present and to the owner of the building.

Regulation 278/05 also applies to every project and its owner when the owner or his agent hires a contractor or subcontractor to perform work or supply services.

ACM is defined as a material that contains 0.5 per cent or more asbestos by dry weight.

The Occupational Health and Safety Act (OHSA) also has a general duty clause under section 25(2)(h) which states that an employer shall take every precaution reasonable in the circumstances for the protection of a worker.

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Does the Regulation 278/05 apply whether or not it is known or suspected that ACM will be encountered?

Yes. The Regulation applies whether or not it is known or suspected that ACM will be encountered during a project, repair, alteration or maintenance of a building, or demolition of machinery, equipment, aircraft, ships, locomotives, railway cars and vehicles. This ensures that material that may be handled, disturbed or removed will be examined to determine whether it is ACM or will be treated as though it is ACM.

The Regulation also applies to specified operations if ACM is likely to be handled, dealt with, disturbed or removed during the course of the work.

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How is the Regulation applied to construction projects?

The Regulation applies to the owner of a project, and to every constructor, employer and worker who works in or on the project. An employer includes all contractors and subcontractors.

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How is the Regulation applied to buildings?

The Regulation applies to every employer and worker in a building engaged in a project, repair, alteration, maintenance or demolition and work incidental to such activity.

It is important to note that the term "owner", as defined by the Act, includes tenants. Depending upon the circumstances a tenant may be considered to be an "owner" or may be considered to be an "occupier". Once notified by an owner of the presence, in the area he or she occupies, of ACM or material being treated as ACM, the occupier takes on the responsibilities set out in the Regulation for notifying and training his or her own workers.

Section 30 of the Act requires the owner of a project to prepare a list of designated substances on the project, including asbestos, and make it available to a constructor. If any work on the project is tendered, the person issuing the tenders must include, as part of the tendering information, a copy of the list of all designated substances for the project, prepared by the owner. This section of the Act applies to the owners of residential properties who undertake projects, and helps to ensure that constructors, employers and workers who carry out these projects are aware of the presence of asbestos in these buildings.

Buildings that contain material that may be ACM are covered by the Regulation even when no work is being done on them. The owners of these buildings are

required to maintain an asbestos management program even when no work is being done on them.

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What is the Asbestos Management Program in Buildings?

Regulation 278/05, section 8 requires asbestos management programs in various circumstances such as:

- when an owner knows or ought reasonably to know of the presence of friable and non-friable ACM in a building, and
- when an owner may also choose to treat friable and non-friable material that has been used in a building for any purpose related to the building as though it is ACM.

The asbestos management program includes requirements for asbestos record keeping, regular inspection, notification of occupiers, employers, workers, and worker training.

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What are the requirements to control workers' exposure to asbestos exposure?
Regulation 278/05 requires that asbestos work be classified according to the asbestos hazard presented by the work, both to those doing the work and to others outside the work area.

The work classification can be thought of as being associated with a low, medium, and high risk of exposure. Activities have been assigned to one of the three types of operations based on an assessment of the risk of exposure. Based on the type of asbestos work, protective measures must be followed to control the exposure. The control measures include requirements such as isolation, signage, training, personal protective equipment, decontamination facilities, work procedures etc.

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Where can I find more information on regulatory requirements to control workers exposure to asbestos exposure?

- E-Laws: [Occupational Health and Safety Act \(OHSA\)](#)
- E-Laws: [Regulation respecting Asbestos on Construction Projects and in Building and Repair Operations](#)
- [A Guide to the Regulation Respecting Asbestos on Construction Projects and in Buildings and Repair Operations](#)

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I think I might have asbestos in my building, how can I get it tested?

A qualified consultant can be retained who will take samples and validate/confirm if asbestos is present. The Occupational Hygiene Association in Ontario (OHAO) has a Directory of Consultants that can provide asbestos consulting services

As well, health and safety information and services are offered by Ontario's Health and Safety Associations and Partners such as:

- **the Infrastructure Health & Safety Association (IHSA),**
- **the Public Services Health & Safety Association (PSHSA), and**
- **the Workplace Safety & Prevention Services (WSPS)**

A Guide to the Regulation Respecting Asbestos on Construction Projects and in Buildings and Repair Operations

- **Issued: November 2007**
- **Content last reviewed: May 2011**

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Lead on Construction Projects

- Issued: September 2004
- Updated: April 2011
- Content last reviewed: April 2011

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Appendix 2 - Respirator Requirements and Other Measures and Procedures for Type 1, 2, and 3 Lead-Containing Operations

Silica On Construction Projects

- Issued: September 2004
- Updated: April 2011
- Content last reviewed: April 2011

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Health and Hygiene:

Alert: Hazards in Hardwood Floor Installation and Finishing

- ISSN: 1195-5228
- Issued: December 1993
- Content last reviewed: June 2009
- See also: **Workplace Hazardous Materials Information System (WHMIS): A Guide to the Legislation**

Hazard Summary:

Many solvent-based products are still widely used in the installation and finishing of hardwood floors. They are often highly flammable and/or combustible and pose a significant risk of fire and explosion. As well, when improperly handled they may cause acute or chronic health effects in workers.

The process of hardwood floor installation and finishing usually involves the use of three kinds of product:

- **An adhesive is used to apply wood flooring to concrete or other types of subfloor.**
- **A sanding sealer mixed with sawdust is applied to the sanded wood surface.**
- **A varnish is applied as a top coat as soon as the sanding sealer has dried.**

Improper handling of these products may present the following hazards:

Fire or Explosion

The use of these products in enclosed and poorly ventilated areas may cause a significant build-up of vapours, to a point where sparks or open flames can ignite the vapours, causing a fire or explosion. The Ministry of Labour has investigated cases in which fires and explosions have resulted in fatalities.

Inhalation of Vapours

These products contain organic solvents and other substances: epoxies, urea-formaldehyde, polyurethane, and nitrocellulose resins and additives. If the products are improperly handled, workers can be exposed to high levels of solvent or other vapours. Prolonged and repeated exposure to high levels of these vapours may produce both acute and chronic adverse health effects.

Direct Skin Contact

Direct contact with these products can cause skin dermatitis and/or sensitization. Sufficient absorption through the skin could lead to adverse systemic health effects.

Locations and Sectors:

Construction or renovation of low rise and high rise residential and industrial, commercial and institutional buildings.

Required Measures and Procedures:

- **The manufacturer's instructions included in the Material Safety Data Sheets shall be strictly followed.**
- **Adequate ventilation shall be provided to ensure a dilution rate of at least 25% of the Lower Explosion Limit (LEL) of the solvent vapour mixture in the air.**
- **All open flames and sources of ignition that may be present in the area itself or within the heating and ventilation systems shall be eliminated.**
- **All equipment present in the area shall be fire-resistant and explosion-proof.**
- **Adequate respiratory protection shall be provided and used. Respirators shall be fitted to ensure an effective seal between the respirator and the worker's face.**

- A respirator program for the proper selection, use and maintenance of respirators shall be instituted. The program shall include written instruction for workers.
- Protective gloves or cream barriers shall be provided to prevent direct skin contact with these products.
- Workers shall be trained to follow good personal hygiene, in order to prevent skin dermatitis, sensitization and skin absorption.
- Adequate product-specific training shall be provided to workers, as required under the WHMIS legislation [R.R.O. 1990, Reg. 860 as amended by O. Reg. 36/93].
- Less toxic products should be used where these are available, to prevent both short-term and long-term adverse effects in workers.
- Less flammable or non-flammable and non-combustible products should be used where these are available.

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Remember that while complying with occupational health and safety laws, you are also required to comply with applicable environmental laws.

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Preventing Infectious Diseases on Construction Projects

- Issued: March 2012
- Content last reviewed: June 2020

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Protecting workers is part of the government's commitment to prevent workplace injuries and diseases through its Safe At Work Ontario Strategy. Construction workers are often at risk from exposure to infectious diseases on construction projects due to poor sanitary conditions associated with toilets and clean-up facilities.

Poor sanitation is a major cause of disease and can be a serious occupational health risk.

Infectious disease prevention and control are to be maintained on construction projects through adequate sanitary conditions and adherence to good hygiene practices.

General duties of workplace parties

Protecting workers from infectious diseases on construction projects

It is the responsibility of all workplace parties including constructors, employers and suppliers to ensure compliance with the provisions of the OHSA and the regulations in order to protect workers from hazards in the workplace including the protection of workers from infectious diseases due to inadequate sanitation on construction projects.

Construction employers have duties under the Occupational Health and Safety Act (OHSA) to ensure that every reasonable precaution in the circumstance is taken for the protection of workers (clause 25(2) (h)) of the OHSA.

Employers must report all occupational diseases to the Ministry of Labour and the workplace's Joint Health and Safety Committee (JHSC) as required by Subsection 52(2) of the OHSA.

Employers are also required, by clause 25(2) (a) of the OHSA, to provide information, instruction and supervision to a worker to protect the health or safety of the worker. This includes, and is not limited to, information and instruction and supervision about infectious diseases and associated hazards and health risks.

Constructors must ensure that, in accordance with section 29 of the Construction Regulation (O. Reg. 213/91), toilets, urinals and clean-up facilities are provided or arranged for workers before work starts at a project and that there is reasonable access to them.

Suppliers have a duty under section 31 of the OHSA, to provide toilets and clean-up facilities that are in good condition and that comply with section 29.1 of the Construction Regulation.

Safe work practices

Constructors

Toilets

- Provide (or make arrangements for) water flush toilets that are connected to a sanitary sewer, or chemical flush toilets that are not connected to a sanitary sewer.
- Ensure that minimum numbers of toilets as prescribed per number of workers regularly employed at the project are provided, and separate facilities for female workers are provided, unless the facilities are intended to be used by only one worker at a time.
- Ensure an adequate number of urinals are provided. Subsection 29.1(6) of the Construction Regulation provides the number of urinals that can replace toilets if the facilities are only to be used by males. Ensure that facilities are serviced as often as required. (One week intervals may not be sufficient in warm weather or when larger numbers of workers are present at a project).

Clean-up facilities

- Provide an adequate number of clean-up facilities, as prescribed and ensure that they are equipped with wash basins, with both hot and cold running water where reasonably possible, paper towels and receptacle or a hand dryer.
- In cases where it is not reasonably possible to provide running water, it is permissible to use hand cleanser that can be used without water, paper towels (and receptacle) or a hand dryer.

Notes:

1. Although this is a fact-specific determination to be made by an inspector at a workplace, it is the position of the Ministry of Labour that clean-up facilities complete with hot and cold water (or ⁽¹⁾ warm water) are, as a general matter, reasonable to provide by Constructors in almost all construction projects.
2. Where it is not reasonably possible to have a wash basin with running water at a clean-up facility, the workplace parties, namely the constructor and employer must provide the rationale as to why “it is not reasonably possible”
3. Your attention is drawn to the requirement of s. 30 for washing facilities with clean water, soap and individual towels when workers handle or use corrosive, poisonous or other substances likely to endanger their health, namely cement, vitreous fibers or other controlled products whose material safety data sheet require washing with water and soap after the use of the product.

Toilet and Clean-up Facilities

- Ensure that the facilities are adequately heated (if possible), ventilated, illuminated and kept in good condition at all times.
- Ensure that facilities are regularly serviced, cleaned and sanitized.
- Keep records of when they were serviced, cleaned and sanitized.

Employers

- Inform, instruct and supervise workers on proper procedures when using the facilities and the importance of hand washing and sanitary conditions.
- Ensure that workers follow proper procedures and report hazards.
- Advise workers on the dangers to health and safety and hazards, health risks and infectious diseases associated with poor hand hygiene and poor sanitation of toilet facilities.

Supervisors

- Ensure on behalf of their employer that the construction projects have adequate facilities and they are adequately serviced and sanitized

- Advise workers on the dangers to health and safety and hazards, health risks and infectious diseases associated with poor hand hygiene and poor sanitation of toilet facilities

Workers

- Follow safe practices and good personal hygiene
- Report any unsafe condition to their supervisor

Construction Health & Safety Program (CHSP) and stakeholder engagement

- There is a renewed commitment among industry stakeholders in our sector to improve sanitary conditions on construction projects and to achieve better compliance with the OHSA and the Construction Regulation.
- The Ministry has been working with the Ontario Association of Sewage Industry Services (OASIS) and the Infrastructure Health & Safety Association (IHSA) to educate and inform suppliers and contractors of their respective responsibilities under the OHSA and the Construction Regulation.

More information

More information about Infectious Diseases and the Enforcement Strategy and Compliance on construction projects can be found at the following links:

Construction site health and safety during COVID-19

Read more about Ontario's *Safe At Work Ontario* strategy to improve workplace safety

Ministry of Labour, Construction Safety

Call toll-free

Call 1-877-202-0008 any time to report critical injuries, fatalities or work refusals. Call 8:30 a.m. 5:00 p.m., Monday-Friday, for general inquiries about workplace health and safety.

^[1] Where electrical power is not available, the use of warm water is permissible in lieu of providing hot and cold running water.

Manholes, Pipes and Sewers:

Alert: Air Pressure in Water Pipe Systems

- ISSN: 1195-5228
- Issued: December 1993
- Content last reviewed: June 2009

Hazard Summary:

During accident investigations, Ministry of Labour field staff have found that, after a water pipe system has been pressurized to test connection leaks or for low pressure air testing, the pressure in the end pipe often remains dangerously high. Acting on the end pipe cap or on the thrust block, this pressure is usually counterbalanced by the pressure of the soil backfill until the excavation is re-excavated to connect the end pipe to new pipes. Unless the pressure is relieved, the pipe cap or the thrust block can become a high velocity projectile, potentially endangering workers in or near the excavation.

Location(s) and Sector(s):

Excavations for water pipe connections.

Suggested Precautions:

To avoid a potential hazard to workers, all constructors should take the following precautions:

1. When existing water pipes are to be connected to a new installation and there is no pressure relief valve on the system the pipe should be tapped following approved pipe tapping procedures. At no time should pipe cap screws be loosened under pressure allowing the pipe cap to "blow-off." A written procedure for this operation should be on the project. The workers must be aware of the potential hazard and trained to work in accordance with this procedure.
2. It is recommended that pressure relief valves or similar devices be incorporated into the design of new underground piping systems.

The constructor must ensure that work in the excavation is done in accordance with clause 48(1)(a) of Ontario Regulation 231/91, the Regulation for Construction Projects.

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Alert: Explosion - Sewer Construction Using a Laser Device

- ISSN: 1195-5228
- Issued: September 1993
- Content last reviewed: June 2009

Hazard Summary:

During the investigation of an explosion at a sewer repair project the ignition source was found to be the battery connection for the project's laser alignment device. Both laser and battery had been located in a manhole. Natural gas, seeping through the soil from a damaged temporary plastic gas line, was ignited by a spark from the battery connection. In the resulting explosion a worker was badly burned.

A battery inside a manhole, and not remote from it, may be a hazard. The laser manufacturer's written instructions apparently do not address battery location.

Location(s) and Sector(s):

Construction of underground piping systems. Also work in existing sewer manholes when tying into existing sewer lines which are considered a confined space.

Suggested Precautions:

The battery for a laser device should be located far enough from the manhole or sewer pipe to ensure that it will not act as an ignition source for explosive hazards originating in the excavation or in existing sewer lines. Extra-length conductors may be required and are available.

Legislative Requirements:

The Confined spaces requirements outlined in the Regulations for Construction Projects, Ontario Regulation 213/91, require an employer on a project including a confined space that workers may enter to perform work, to develop and maintain a written confined space program, to have a competent worker carry out an adequate assessment of the hazards related to the confined space before it is entered by a worker, and to have a corresponding adequate written plan, identifying the controls to be implemented for each one of the identified hazards (respectively sections 221.5, 221.6 and 221.7). Other confined space requirements, including an entry permit need to be implemented as well.

Even in those instances where no confined space exists, the employer must “take every reasonable precaution in the circumstances, for the protection of a worker” (Occupational Health and Safety Act, section 25(2)(h)). This includes evaluating the hazards in the workplace and establishing adequate controls and a health and safety program implemented in the workplace.

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Mobile Equipment:

Guideline for the Safe Operation and Maintenance of Powered Lift Trucks

- Issued: July 1999
- Content last reviewed: June 2009

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Alert: Operating Construction Equipment in Reverse

- ISSN: 1195-5228

- Issued: January 2001
- Content last reviewed: January 2009

Hazard Summary:

A construction worker was killed while working behind a piece of road building equipment operating in the reverse direction. A Ministry of Labour investigation found the worker had gone behind the equipment without the knowledge of the equipment operator. This was contrary to the work practice previously established between the heavy equipment operator and the engineering technician taking grade on the road construction project.

Required Action:

Whenever heavy construction equipment is being used, including road building equipment, workers working nearby must be sure to establish eye contact with the equipment operator.

Section 104 of O. Reg. 213/91, Regulations for Construction Projects requires that every project be planned and organized so that vehicles, machines and equipment are not operated in reverse or are operated in reverse as little as possible. Where this is not feasible the constructor/employer shall ensure that no vehicle, machine or equipment, crane or similar hoisting device, shovel, backhoe or similar excavating machine shall be operated unless the operator is assisted by a signaller,

(1) where the operator's view of the intended path of travel or any part of its travel is obstructed;

or

(2) where it is in a location in which a person may be endangered by its intended path of travel.

Section 104 (5) states that the operator and the signaller shall jointly establish the procedures by which the signaller assists the operator and both shall follow those procedures.

Section 106 outlines the duties of a signaller including the direction not to perform other work while acting as the signaller. The employer shall also ensure the signaller has received adequate oral and written training in his or her duties as a signaller and is wearing adequate personal protective equipment, including a garment fluorescent blaze or international orange in colour. A review of the training needs of the workers required to perform the work should also occur.

Pre-job meetings should occur to review the scope of work, and safety hazards associated with the type of work that is to be performed.

Clear and precise written instructions should be given to all workers and equipment operators regarding the hazards associated with working near or adjacent to heavy equipment and when the use of a signaller is required for the safe operation of the equipment.

This Ministry of Labour Alert has no legal effect and does not constitute and is not a substitute for legal advice. If you require specific assistance with respect to the interpretation of a legislative provision and its potential application to you please contact your legal counsel.

Remember that while complying with occupational health and safety laws, you are also required to comply with applicable environmental laws.

Please photocopy Ministry of Labour Alerts, distribute them widely and post them where people will see them.

Scaffolds:

Guidelines for Multi-Point Suspended Scaffolds (MPSS)

- ISBN: 0-7794-9927-1
- Issued: April 2006
- Content last reviewed: June 2009

These guidelines are being updated to reflect amendments to O. Reg. 213/91 (Construction Projects) that came into force on January 1, 2017.

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Tower Cranes:

De-rating of mobile cranes capable of raising, lowering, or moving materials that weigh more than 16,000 lbs

- **Issued: January 18, 2016**
- **Content last reviewed: January 2016**

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer.

As mobile cranes age, they may reach a point where their useful life may be extended by making physical modifications to permanently reduce their lifting capacity. In this case the Ministry of Labour (MOL) will accept a crane's de-rating subject to the conditions listed below.

However, the MOL will not accept de-rating of cranes for the purposes of using a less qualified operator, which does not involve physical alteration of the equipment or which involves changes that can be easily reversed when determining the weight that a crane is "capable of raising, lowering or moving" under section 150 of the Construction Projects Regulation (O. Reg. 213/91).

Construction Program enforcement with respect to mobile cranes de-rating
De-rating of a mobile crane must comply with the following regulatory requirements:

1. The new rated load-carrying capacity must be accompanied by documentation provided by the manufacturer or by a professional engineer confirming that the de-rated capacity has been determined in accordance with CSA Standard Z150-1974, as required by subsection 151(2) of the Construction Projects Regulation.
2. The original load-rating chart must be removed and a new chart corresponding to the reduced rated capacity must be developed and installed on the equipment, in accordance with subsection 151(3) of the Construction Projects Regulation.
3. When determining the weight that the crane is "capable of raising, lowering or moving" for the purposes of enforcing section 150 of the Construction Projects Regulation, the MOL will consider the crane to be "capable" of lifting its original rated load-carrying capacity unless there has been physical alteration to the equipment so that the de-rated crane does not have an excessive capacity (after applying appropriate safety factors), in any configuration to lift a load over the de-rated capacity. This applies to both weight and reach.

NOTE: If the operator is capable of returning the crane to its original capacity, then the de-rating will not be accepted by the MOL for the purposes of determining the weight that the crane is "capable of raising, lowering or moving" under section 150.

Inspectors may issue an order under section 150 or other relevant sections of the Construction Projects Regulation to the workplace parties if there is a contravention concerning the qualifications of the crane operator or the unsafe operation of the crane.

Inspectors may use their power under clause 54(1)(f) of the Occupational Health and Safety Act (OHSA) to require the employer to confirm by way of a report by a professional engineer or crane manufacturer the actual

load-carrying capacity of a crane for the purposes of enforcing subsection 151(2) of the Construction Projects Regulation and accordingly considering the new de-rated crane capacity.

Where requirements are issued under clause 54(1)(f) of the OHSA, a “stop use” requirement under clause 54(1)(i) should also be considered.

Under subsection 150(1) of the Construction Projects Regulation, the operator of a mobile crane capable of raising, lowering, or moving any material that weighs more than 16,000 lbs or a tower crane of any capacity must be certified by the Ontario College of Trades or be a registered apprentice in the relevant “Hoisting Engineer” trade. The Ontario College of Trades and Apprenticeship Act, 2009 requires that individuals engaging in the practice of a compulsory trade have the training and certification required to legally practice this trade in Ontario. The “Hoisting Engineer” trades (Hoisting Engineer – Mobile Crane Operator 1; Hoisting Engineer – Mobile Crane Operator 2; and Hoisting Engineer – Tower Crane Operator) are compulsory trades in Ontario which apply to operators of mobile cranes capable of raising, lowering, or moving materials that weigh more than 16,000 lbs and to operators of tower cranes, regardless of the tower crane’s capacity.

The Ministry of Labour enforces the Occupational Health and Safety Act and its regulations, which set legal requirements for employers to ensure the protection of workers.

Background information and legal requirements

Employers have a duty under the Occupational Health and Safety Act, clause 25(1)(c) to ensure that the measures and procedures prescribed are carried out in the workplace. This includes compliance with the training and certification of crane operators as required by section 150 of the Construction Projects Regulation. Clause 25(2)(a) requires the employer to provide information, instruction and supervision to a worker to protect the health or safety of the worker. Clause 25(2)(h) requires the employer to take every precaution reasonable in the circumstances for the protection of a worker.

- Section 150 of O. Reg. 213/91 prohibits the operation of a mobile crane capable of raising, lowering or moving material that weighs more than 16,000 pounds, unless the operator holds a certificate of qualification issued under the Ontario College of Trades and Apprenticeship Act, 2009, that is not suspended, or the worker is an apprentice and is working pursuant to a training agreement registered under that act, that is not suspended, in the applicable “Hoisting Engineer” trade.
- De-rating a mobile crane to a capacity less than 16,000 pounds would allow its operation by an operator who does not hold a certificate of qualification issued under the Ontario College of Trades and Apprenticeship Act, 2009. The operator also does not need to be an apprentice working pursuant to a training agreement registered under that act. Under subsection 150(2) of the Construction Projects

Regulation, the operator would only need written proof of training indicating that he or she is trained in the safe operation of the crane with a capacity of less than 16,000 pounds, or be instructed and accompanied by a person who has that written proof of training.

Excerpts of some regulatory requirements under the OHSA

Section 150 of O. Reg. 213/91 states:

- **(1) Subject to subsection (2), no worker shall operate a crane or similar hoisting device unless the worker holds a certificate of qualification issued under the Ontario College of Trades and Apprenticeship Act, 2009, that is not suspended, or the worker is an apprentice and is working pursuant to a training agreement registered under that Act, that is not suspended, in the trade of,**
 - **(a) hoisting engineer — mobile crane operator 1, if the worker is operating a crane or similar hoisting device capable of raising, lowering or moving any material that weighs more than 30,000 pounds;**
 - **(b) hoisting engineer — mobile crane operator 1 or hoisting engineer — mobile crane operator 2, if the worker is operating a crane or similar hoisting device capable of raising, lowering or moving only material that weighs more than 16,000 pounds but no more than 30,000 pounds; or**
 - **(c) hoisting engineer — tower crane operator, if the worker is operating a tower crane.**
- **(1.1) Subsection (1) does not apply when a worker is using excavation equipment to place pipes into a trench. O. Reg. 631/94, s. 3.**
- **(2) No worker shall operate a crane or similar hoisting device, other than one described in subsection (1), unless,**
 - **(a) the worker has written proof of training indicating that he or she is trained in the safe operation of the crane or similar hoisting device; or**
 - **(b) the worker is being instructed in the operation of the crane or similar hoisting device and is accompanied by a person who meets the requirements of clause (a). O. Reg 213/91, s. 150 (2).**
- **(3) A worker shall carry his or her proof of training while operating a crane or similar hoisting device. O. Reg. 213/91, s. 150 (3).**

Subsection 151(2) of O. Reg 213/91 states:

- (2) The manufacturer of a crane or similar hoisting device or a professional engineer shall determine its rated load-carrying capacity in accordance with,
 - (a) for a mobile crane, Canadian Standards Association Standard Z150-1974 Safety Code for Mobile Cranes; and
 - (b) for a tower crane, Canadian Standards Association Standard Z248-1976 Code for Tower Cranes. O. Reg 213/91, s. 151 (2).

Mobile Cranes and Material Hoisting

- Issued: June 2012
- Content last reviewed: August 2016
- See also: [Construction](#) | [Lifting Equipment](#) | [Mobile Equipment](#)

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. For further information please see full disclaimer. The safe operation of mobile cranes in Ontario continues to be a major concern for the Ministry of Labour.

Between April 1, 2011 and May 31, 2016, three workers died and 12 were seriously injured in incidents involving mobile cranes at construction sites across Ontario, according to Ministry of Labour reports. There were also 66 reported incidents involving minor injuries to workers or “close calls”. Some of these incidents occurred when cranes overturned, or when the cranes or the material that they were lifting struck or crushed workers when the load was dropped, or when the crane or its load came in contact with overhead energized power lines.

Some general duties of workplace parties under the OHSA and its regulations:
Employers

The Occupational Health and Safety Act, (OHSA) sets out general responsibilities for employers. Among other duties, an employer must:

- instruct, inform and supervise workers to protect their health and safety [OHSA s. 25(2)(a)]
- appoint competent persons as supervisors [OHSA s. 25(2)(c)]
- take every precaution reasonable in the circumstances for the protection of workers [OHSA s. 25(2)(h)]
- post a copy of the OHSA in the workplace [OHSA s. 25(2)(i)]

An employer with six or more employees must:

- prepare an occupational health and safety policy, review that policy at least once a year and set up a program to implement it [OHSA s. 25(2)(j)]
- post a copy of the policy in the workplace in a spot workers will be most likely to see it [OHSA s. 25 (2)(k)]

Supervisors

The OHSA sets out certain general duties for workplace supervisors. A supervisor must:

- ensure workers work with the protective devices, measures and procedures required by the OHSA and its regulations [OHSA s. 27(1)(a)]
- ensure workers use or wear any equipment, protective device or clothing required by the employer [OHSA s. 27(1)(b)]
- advise workers of any potential or actual health or safety dangers known by the supervisor [OHSA s. 27(2)(a)]
- provide workers with written instructions about the measures and procedures to be taken for the workers' protection, if required by the regulations [OHSA s. 27(2)(b)]
- take every precaution reasonable in the circumstances for the protection of workers [OHSA s. 27(2)(c)]

Workers

Below are some general duties contained in the OHSA for workers. A worker must:

- work in compliance with the provisions of the OHSA and its regulations [OHSA s. 28(1)(a)]
- use or wear the equipment, protective device or clothing required by the employer [OHSA s. 28(1)(b)]
- report any defects of equipment, other hazards, and any contraventions to their supervisor or employer [OHSA s. 28(1)(c) and (d)]
- not use or operate any equipment in a manner that would endanger themselves or another worker [OHSA s. 28(2)(b)]

Workers should be aware of their OHSA rights, including the right to refuse unsafe work and the right to know about any potential hazards.

Protecting workers

Employers, supervisors and trainers should encourage workers to communicate any questions or concerns they may have about fall hazards. Supervisors or others involved in training workers should be familiar with any health and safety concerns affecting the workers.

Suppliers

Suppliers of rented or leased machines, devices, tools or equipment for use in OHSA-covered workplaces must ensure the equipment:

- **is maintained in good condition [OHSA s. 31(1)(a)]**
- **complies with the OHSA and its regulations [OHSA s. 31(1)(b)]**

Owners

Owners of cranes or similar hoisting devices must:

- **keep a permanent record of all inspections, tests, repairs, modifications and maintenance [Regulations for Construction Projects s. 152(1)]**
- **prepare a log book that includes a permanent record of whichever is greater: the past 12 months or the period the cranes or hoisting devices are on the project [Construction Regulations s. 152(2)]**
- **keep the log book with the cranes or hoisting devices [Construction Regulations s. 152(3)]**
- **retain and make available to the constructor, on request, copies of all log books and records for the cranes or hoisting devices [Construction Regulations s. 152(4)]**

For more information on legal responsibilities please visit [e-Laws](#)

Further information on mobile crane safety

- **[Safe At Work Ontario](#)**
- **[Construction Safety](#)**
- **[Guide to the Occupational Health and Safety Act](#)**
- **[Regulations for Construction Projects](#)**
- **[Infrastructure Health & Safety Association](#)**
- **[Workplace Safety & Insurance Board](#)**
- **[Health & Safety Partners](#)**
- **Canadian Standards Association (CSA) standards in occupational health and safety legislation: Join "[CSA Communities](#)" for free access**

Ministry of Labour Health & Safety Contact Centre

Call toll-free 1-877-202-0008 anytime to report workplace health and safety incidents. Call 8:30 a.m. to 5 p.m., Monday to Friday, for general inquiries about workplace health and safety.

Always call 911 in an emergency.

Tower crane safety on construction projects

Learn about the regulatory requirements and duties under the Occupational Health and Safety Act for the safe use of tower cranes on projects.

On this page

1. [Overview](#)
2. [Duties of workplace parties](#)
3. [Points to consider for operating a tower crane safely](#)
4. [Compliance information](#)
5. [Contact us](#)

Overview

Tower cranes are designed, tested, and manufactured to lift or move loads safely. When workplace parties use them properly, they provide safe, reliable service and lift heavy loads to great heights. If workplace parties do not follow safe operating practices, which includes regular inspection, testing, and maintenance of the equipment in accordance with the manufacturer's specifications, tower cranes can have an increased potential for catastrophic incidents.

Before tower cranes are erected at a job site, their structural elements are subject to non-destructive testing. Once the crane is set up, workplace parties conduct additional inspections and tests before they put the tower crane into service.

Crane operators and personnel working with cranes need to know crane about:

- capacities
- limitations
- findings from required periodic inspections
- location of energized overhead electrical conductors
- effects of high winds or other environmental considerations

This guide does not replace the Occupational Health and Safety Act (OHSA) and its regulations and should not be used as or considered legal advice. Health and safety inspectors apply the law based on the facts in the workplace.

Duties of workplace parties

Employers

To protect workers, employers must ensure that all workplace parties comply with all provisions of the Occupational Health and Safety Act (OHSA) and regulations. Some of the duties of an employer who is covered by the OHSA include ensuring that:

- equipment, material, and protective devices provided by the employer are maintained in good condition
- every precaution reasonable in the circumstances is taken for the protection of a worker
- all vehicles, machines, tools, and equipment shall be maintained in a condition that does not endanger a worker
- no vehicles, machines, tools, and equipment shall be used while it is defective or hazardous or when the weather or other conditions are such that its use is likely to endanger a worker
- all vehicles, machines, tools and equipment are used in accordance with any operating manuals issued by the manufacturers
- copies of any operating manuals issued by the manufacturers (for vehicles, machines, tools and equipment rated at greater than 10 horsepower) are kept readily available at the project
- the tower crane is inspected by a competent worker to determine whether it can handle the rated capacity and to identify any hazardous conditions. (The inspection shall be performed before the tower crane is first used at the project and thereafter at least once a year or more frequently as recommended by the manufacturer)
- all engineering reports and maintenance records for the tower crane are kept at the project
- the foundation of the tower crane is designed by a professional engineer in accordance with the crane manufacturer's specifications, and signed drawings are at the construction project
- before the tower crane is erected at the project, a professional engineer shall ensure that the structural elements and components of the crane be subjected to non-destructive testing to ensure the structural integrity of the crane
- the structural elements and components are inspected after the tower crane is erected and before it is used at the project and at intervals not greater than twelve months
- safety systems — load indicators, rated capacity limiters, limit switches — are operating properly and are continuously monitored and tested per manufacturer's instructions and the construction regulation

Supervisors

To protect workers, supervisors must ensure that all workplace parties comply with all provisions of the Occupational Health and Safety Act and prescribed regulations. Under the OHSA, a supervisor has duties that include, but are not limited to:

- ensuring that workers use the protective devices and work in compliance with measures and procedures required by the OHSA and regulations

- taking every precaution reasonable in the circumstances for the protection of workers
- inspecting — or designating a competent person appointed by the supervisor to inspect — machinery and equipment at least once a week (or more frequently as required) to ensure that the machinery and equipment does not endanger any worker

Suppliers

Every person who supplies any machine, device, tool, or equipment under any rental, leasing, or similar arrangement for use in or about a workplace covered by the Occupational Health and Safety Act has obligations, including ensuring that the machine, device, tool or equipment:

- is in good condition
- complies with the OHSA and related regulations
- is maintained in good condition (if it is the person's responsibility under the rental, leasing, or similar arrangement to do so)

Owners

The owner of a crane or similar hoisting device must:

- keep a permanent record of all inspections, tests and maintenance of, and repairs and modifications to the crane or similar hoisting device
- prepare a logbook for use at a project that will include the permanent record referred to above covering the last 12 months, which may include time the crane or similar hoisting device is on the project
- keep this logbook with the crane or similar hoisting device
- retain copies of all logbooks and records for the crane or similar hoisting device, and make them available to the constructor on request

Erection of a tower crane

- Before a tower crane is erected at a project, a professional engineer shall ensure that the structural elements and components of the crane be subjected to non-destructive testing to ensure the structural integrity of the crane
- The professional engineer conducting an inspection or under whose direction an inspection is done shall prepare a written report of the test results

- The constructor shall keep the report at the project while the crane is erected

Points to consider for operating a tower crane safely

- Have all the specific hazards associated with the work in progress been analyzed?
- Has specific training with respect to the hazards of erecting and operating a tower crane been provided (authorized crane operator, fall protection, material handling, rigging, signalling)?
- Are rescue procedures in place?
- Has the tower crane been properly maintained (maintenance record, logbooks)?
- Has the tower crane been properly inspected before erection (non-destructive testing report, components identified and tracked to ensure all structural components inspected)?
- Has the tower crane been properly inspected after erection (engineering reports for the foundation, shoring and bracing, the structural integrity of the building, drawings, and reports to be approved and signed by a professional engineer)?

Compliance information

- Construction safety
- Infrastructure Health and Safety Association
- Workplace Safety & Insurance Board
- A Guide to the Occupational Health and Safety Act

Contact us

If you need more information about safety requirements please contact the Ministry of Labour, Training and Skills Development Health & Safety Contact Centre at 1-877-202-0008 on Monday to Friday, from 8:30 a.m. to 5:00 p.m., or webohs@ontario.ca.

Site Safety Videos:

- Preventing Infectious Diseases on Construction Sites

- Emergency Response Planning on Construction Projects

- Fall Hazards in Construction and Inspectors' Enforcement Tools

-

Traffic Control During Road Construction

- **Illegal Deductions from Wages**

- **What to Expect During an Employment Standards Inspection**

- **Commercial Diving Safety**

- **Construction Project Supervisors**

- **Emergency Response Planning on Construction Projects**

- **Fall Hazards in Construction and Inspectors' Enforcement Tools**

- **Manual Materials Handling: Construction**

- **Preventing Infectious Diseases on Construction Sites**

- **Safety on Swing Stages**

- **Tower Crane Safety**

- **Traffic Control During Road Construction**

- **Trench Digging and Excavation Safety**

- **Ministry of Labour's Channel: Ontario at Work**

- **Our partner's channels:**

- o **Health & Safety Ontario**
- o **Occupational Health Clinics for Ontario Workers**
- o **Public Services Health & Safety Association**
- o **Workers Health & Safety Centre**
- o **Workplace Safety North**
- o **Workplace Safety & Insurance Board**
- o **Workplace Safety & Prevention Services**

- **More Videos**

-

Worker Training:

Workers must be trained in the safe operation of construction equipment.

Foundation Drilling Equipment

- Content last reviewed: July 2012

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. FOR FURTHER INFORMATION PLEASE SEE FULL DISCLAIMER

The Ministry of Labour (MOL) enforces the Occupational Health and Safety Act (OHSA), which includes enforcing the requirement that employers ensure workers are trained in the safe operation of equipment, such as foundation drilling equipment. The Ministry of Training, Colleges and Universities (MTCU) is consulting with relevant stakeholders to develop training recommendations for drill rig operators and consider whether or not training requirements should be mandatory.

During this time, the MOL will continue to work with stakeholders to ensure workers' health and safety is protected. The duties for employers remain unchanged at this time and where Ontario regulations require specific trade certification (i.e. hoisting engineer), MOL will be enforcing these requirements on construction projects as appropriate.

For more information, see the MTCU news bulletin that was issued in April announcing the stakeholder consultations:

- Safety of Ontario Workers a Top Priority: Training Supports A Safe Workplace

This page will be updated to reflect any additional enforcement decisions with respect to MTCU training requirements.

FAQs:

The Construction Sector: FAQs: Health and Safety

- Content last reviewed: June 2009
 - **What is a "constructor"?**
 - **What are the legal duties of a constructor?**
 - **What is the relationship of the constructor to the other parties on a project?**

What is a "constructor"?

Under the Occupational Health and Safety Act, a "constructor" is a party (a person or company) who oversees the construction of a project and who is ultimately responsible for the health and safety of all workers. The constructor must ensure that all the employers and workers on the project comply with the Act and regulations.

the Act defines a constructor as a person who undertakes a construction project for an owner. In some cases, the owner of the project is the constructor as well. When an owner undertakes all or part of project, either by himself or herself, or by contracting work out to more than one contractor or employer, the owner becomes the constructor.

If the owner hires only one contractor to do all the work, then that contractor may be the constructor, depending on the contractual arrangements with the owner. The contractor may, in turn, subcontract work to other people, but he or she remains the constructor for the project, as long as he or she is the only party the owner had contracted to do the work.

What are the legal duties of a constructor?

A constructor is to ensure that:

- the measures and procedures prescribed by the Occupational Health and Safety Act and the regulations for construction projects are carried out on the project;
- every employer and every worker on the project complies with this act and the Regulations for Construction Projects;
- the health and safety of workers on the project is protected;
- a health and safety representative or a Joint Health and Safety Committee is selected as prescribed;
- the Ministry of Labour is notified of a project as prescribed;
- the Ministry of Labour is notified of an accident or occurrence as prescribed; and
- every contractor or subcontractor receives a list of all designated substances present at the project before the prospective contractor or subcontractor enters into a binding contract for the supply of work on the project.

This means a constructor has overall responsibility for worker health and safety on a project.

Sections 25 and 26 of the Act also apply to constructors as employers.

What is the relationship of the constructor to the other parties on a project?

The constructor has overall responsibility on a project for compliance with the Occupational Health and Safety Act and the health and safety regulations on construction projects. The constructor can also have duties as employer under the Act.

Safe at Work Ontario:

Construction sector plan 2017-2018

The plan lists health and safety priorities, describes the planned inspection blitzes and enforcement initiatives, and explains what inspectors will focus on during inspections at construction projects.

Safe At Work Ontario is a Ministry of Labour (MOL) initiative to raise awareness of and increase compliance with Ontario's Occupational Health and Safety Act (OHSA) and its regulations.

As part of Safe At Work Ontario, the MOL develops annual sector-specific enforcement plans related to workplace hazards and describes the focus of inspectors.

This Sector Plan outlines the ministry's enforcement initiatives to protect Ontario's workers from occupational injury and illness.

Note that employers have the prime responsibility for ensuring compliance with the OHSA and its regulations.

Every year the ministry holds consultations to shape and improve its occupational health and safety compliance strategy and build closer partnerships with its stakeholders. These sessions:

- **help the ministry to improve its approach to better meet the public's needs**
- **provide an opportunity to learn from the ministry's partners**
- **obtain feedback on how well the program is working**
- **increase support for new directions and**
- **identify areas for improvement.**

The Sector Plans for 2017-2018 describe sector-specific hazards and compliance issues, and the MOL's enforcement focus for inspections in each sector for the upcoming fiscal year.

The plan also acknowledges recent changes to the OHSA that will affect:

- **occupational health and safety**

- workplace parties and
- the ministry's enforcement practices.

As of September 8, 2016, employers have additional duties with respect to workplace harassment, including a requirement to appropriately investigate workplace harassment incidents and complaints. The MOL has a Dedicated Harassment Enforcement Team (DHET) of Inspectors enforcing this new amended legislation.

New resources are available on the MOL site to assist employers and workers with the workplace harassment requirements under OHSA. A Code of Practice under OHSA has been developed to help employers in developing their own workplace-specific harassment policies and programs to comply with the law.

Effective July 1, 2016, O. Reg. 381/15 – Noise Regulation under the Occupational Health and Safety Act (OHSA) replaced the noise protection requirements set out in the regulations for Industrial Establishments, Mines and Mining Plants, and Oil and Gas-Offshore and extends noise protection requirements to all provincially regulated workplaces.

This Sector Plan contains a brief description of some of the main issues that an inspector may address in the workplace. It provides a general overview of the ministry's focus. However, each workplace is unique and the circumstances found by an inspector may result in a different inspection focus. It also contains additional background information on hazards as well as tools and resources relevant for those hazards.

Additionally, there is an overview of the number of critical injuries and fatalities reported to the ministry for each sector in Ontario. Also included are the number of work refusals and complaints reported to the Ministry of Labour's Health and Safety Contact Centre and the number of field visits and orders issued by Ministry of Labour inspectors for each sector.

You are encouraged to familiarize yourself with this plan and share it with others in your workplace.

Ontario provides a toll free province-wide telephone number to report unsafe work practices and workplace health and safety incidents. Call the MOL Health & Safety Contact Centre at 1-877-202-0008.

- Call any time to report critical injuries, fatalities or work refusals.
- Contact the ministry from 8:30 a.m. to 5 p.m., Monday to Friday, for general inquiries about workplace health and safety.

- In an emergency, always call 911 immediately.

Forms:

Forms: Health and Safety

- Content last reviewed: November 2020

Several of these forms are available through **ServiceOntario**.

Note: You have the option of saving a draft of your form by creating a **ServiceOntario account** or logging into your existing account for you to access/edit/submit this form at a later time.

Construction

Notice of Project [Form 0175]

According to Section 6 of the **Regulation for Construction Projects** (O. Reg. 213/91) constructors are required to notify the Ministry of Labour before construction begins of any project meeting any of the requirements applicable to this section (for example, having a total expected cost of more than \$50,000, or \$250,000 if the project is confined to a factory that manufactures or assembles automobiles).

The paper version of this form (catalogue number 027007) is available to order online from **ServiceOntario Publications**. You can also order by calling 1-800-668-9938 Monday to Friday from 8:30 a.m. to 5:00 p.m. A completed form can be submitted by fax but the original signed paper form must still be sent to the local office.

A signed copy of the completed form, whether done online or on the paper form, must be posted in a conspicuous place at the project or be available at the project for review by an inspector.

Registration of Constructors and Employers Engaged in Construction e-Form | PDF [Form 016-1000E]

According to Section 5 of the **Regulation for Construction Projects** (O. Reg. 213/91), before beginning work at a project every constructor and employer engaged in construction has to complete an approved registration form. This form does not have to be submitted to the Ministry of Labour, but it must be at the project while the employer is working there.

This form is available on ServiceOntario.

How to open the PDFs in Chrome and Firefox

Notice of Diving Operation [Form 016-0069E]

This form is used by employers to notify the Ministry of Labour prior to the start of a diving operation in Ontario. This form is available on ServiceOntario.

Notice of Trench Work [Form 016-0070E]

This form is used by constructors to notify the Ministry of Labour, before work is begun at a construction project, if the project includes work on a trench more than 1.2 metres deep into which a worker may enter. This form is available on ServiceOntario.

Notice of Window Cleaning Work [Form 016-0071E]

This form is used by employers, contractors or subcontractors to notify the Ministry of Labour prior to carrying out window cleaning work at a building in Ontario if a suspended scaffold, boatswain's chair or similar single-point equipment is to be used. This form is available on ServiceOntario.

Notice of Asbestos Removal Work [Form 016-0072E]

This form is used by constructors or employers to notify the Ministry of Labour before beginning a Type 3 asbestos removal operation and certain Type 2 asbestos removal operations in Ontario. This form is available on ServiceOntario.

Asbestos Work Report [Form 016-0079E]

This form is used by employers of workers in Type 2 or Type 3 asbestos operations. The form must be completed for each such worker at least once in each 12-month period and immediately on the termination of the employment of the worker. The form is submitted to the Provincial Physician at the Ministry of Labour. A copy of the completed form is given to the worker, and a copy is retained by the employer. This form is available on ServiceOntario.

Notice for Tunnels, Shafts, Caissons and Cofferdams [Form 016-0077E]

This form is used by employers to notify the Ministry of Labour before beginning construction work on a tunnel, shaft, caisson or cofferdam. This form is available on ServiceOntario.

Notice of Use of a Suspended Work Platform System [Form 016-0080]

If you're the Constructor on a construction project, you must notify the Ministry of Labour at least 48 hours before a suspended work platform system is used for the first time. A copy of the completed notice must be kept clearly visible at the worksite for inspection. This form is available on ServiceOntario. The paper version of this form is available from ServiceOntario Publications.

Request for Designation of Separate Projects

A property owner can apply to the Ministry of Labour to have a single project split into two or more different projects. If approved, each project must be clearly separated by time or location and will have its own constructor who is responsible for onsite workers' health and safety. The project owner (or the owner's agent) must make this request. This form is available on ServiceOntario.

Mining

Notice of Mining Activities [Form 016-0073E]

This form is used by employers to notify a Ministry of Labour inspector of: the installation of portable crushing, screening or associated washing equipment or to notify of exploring, dewatering or resuming work at a mine where mining operations have been suspended for more than three months. This form is available on ServiceOntario.

Notice of the Operation of a Test Drill [Form 016-0074E]

This form is used by employers in the mining sector to notify a Ministry of Labour inspector before a test drill is operated at the surface to prove mineral bearing substances, rock, earth, clay, sand or gravel. This form is available on ServiceOntario.

Notice of Magazine or Use of Explosives [Form 016-0075E]

This form is used by the operator of a surface magazine or a mine using explosives to notify the Ministry of Labour and the joint health and safety committee or health and safety representative, if any, before first use of a surface magazine or explosives and annually after first use. This form is available on ServiceOntario.

Notice of a Reportable Incident [Form 016-0076E]

This form is used by mining companies to notify the Ministry of Labour of reportable incidents as identified in section 53 of the Occupational Health and Safety Act and section 21(5) of the Regulation for Mines and Mining Plants. It includes notification of groundfall or rockburst and vehicle incident or fire. This form is available on ServiceOntario.

Notice of Diesel-Powered Equipment [Form 016-0078E]

This form is completed by employers, as required by section 182 (1) of the Regulation for Mines and Mining Plants, before diesel equipment is first used in an underground mine. The completed form must be kept readily available at the mine site. This form is available on ServiceOntario.

Hoist Operator's Medical Certificate [Form 0275E]

This form may be completed by physicians to certify that mine hoist operators are physically fit to perform their duties. Section 238 of Regulation 854 for Mines and Mining Plants requires that operators of mine hoists undergo a yearly medical examination.

Crane Operator's Medical Certificate [Form 0279E]

This form may be completed by physicians to certify that crane operators in mines and mining plants are physically fit to perform their duties. Section 195 of Regulation 854 for Mines and Mining Plants requires that operators of cranes undergo a yearly medical examination.

Radiation Protection Service

Application for Registration with the Radiation Protection Service [Form 00057E]

Learn how to register a workplace X-ray source

Before installing or using an X-ray source in the workplace, employers must register with the Radiation Protection Service (RPS). To register, you must submit:

- an application form
- floor plan drawings indicating where the X-ray source will be located

Radiation Protection Service will review the submission and, once you have received confirmation of approval, you can install and use the X-ray source in the workplace.

For your convenience, documents on this page are provided in Portable Document Format (PDF). To view and print PDF files, you need to have Adobe Acrobat® Reader installed on your computer. You can [download this free software](#).

- [Notice of Diving Operations](#)
- [Notice of Trench Work](#)
- [Notice of Use of a Suspended Work Platform System](#)
- [Notice of Window Cleaning Work](#)
- [Notice of Asbestos Removal Work](#)
- [Asbestos Work Report](#)
- [Notice for Tunnels, Shafts, Caissons and Cofferdams](#)
- [Request for Designation of Separate Projects](#)

Links:

View CSA Standards Cited in OHSA Regulations

- Content last reviewed: October 2013

Many regulations made under Ontario's [Occupational Health and Safety Act](#) require compliance with standards published by the [CSA Group](#). These standards define requirements for reducing the risk of workplace injuries. Ontario--together with the other provinces and territories of Canada--is working with the CSA Group to make it easier for employers and workers to comply with occupational health and safety requirements. Thanks to a pilot project funded in part by the Government of Ontario, you can now read the relevant CSA standards before you buy.

Registration with "CSA Communities" is required to view the standards; however, you are under no obligation to purchase anything.

CSA standards cited in Ontario's occupational health and safety regulations are available online for many sectors, including industry, health care, mining, manufacturing, agriculture and construction.

View CSA Standards

The **CSA Group** is a not-for-profit membership-based association serving business, industry, government and consumers in Canada and the global marketplace.

- **View CSA Standards**
- **Canadian Centre for Occupational Health and Safety**
- **Infrastructure Health & Safety Association**
- **Workplace Safety and Insurance Board**

Laws:

- **Occupational Health and Safety Act**
- **Workplace Safety and Insurance Act**

Regulations:

- **Asbestos on Construction Projects and in Buildings and Repair Operations (O.Reg. 278/05)**
- **Construction Projects (O. Reg. 213/91)**
- **Critical Injury Defined (R.R.O. 1990, Reg. 834)**
- **Roll-Over Protective Structures (R.R.O. 1990, Reg. 856)**
- **Window Cleaning (R.R.O. 1990, Reg. 859)**

Health and Safety Contact Centre:

Toll-free: 1-877-202-0008

TTY: 1-855-653-9260

- Report incidents, critical injuries or fatalities.
If this is an emergency call 911 immediately.
- Workplace health and safety inquiries.
- Report unsafe work practices.

Other ways to contact us

Report an Incident:

Notify the ministry of fatalities, critical injuries, work refusals, reprisals, and unsafe work practices.

Ministry of Labour Health & Safety Contact Centre

- Toll-free: 1-877-202-0008
- TTY: 1-855-653-9260
- Fax: 905-577-1316

File a Workplace Health and Safety Complaint:

Learn how to file a complaint if you have a workplace health and safety or workplace harassment concern and believe your employer is not correcting the situation.

File a complaint online

In an emergency, always call 911 immediately.

Health and Safety Associations

Our partners provide sector-specific health and safety advice, products, services and training.

Infrastructure Health & Safety Association (construction, transportation and utilities)

Toll-free: 1-800-263-5024

Public Service Health & Safety Association (health, community service, education, culture, government)

Toll-free: 1-877-250-7444

Workplace Safety & Prevention Services (industrial, service)

Toll-free: 1-877-494-9777

Workplace Safety North (mining, forestry, paper)

Toll-free: 1-888-730-7821

For more services, see our list of health and safety system partners.

Employment Standards

- Public Holiday Pay, Unpaid Wages, Termination Pay
- Minimum Wage, Hours of Work, Leaves, Vacations
- Filing an Employment Standards Claim

Employment Standards Information Centre

- GTA: 416-326-7160
- Canada-wide: 1-800-531-5551
- TTY: 1-866-567-8893

ServiceOntario

- GTA: 416-326-1234
- Canada-wide: 1-800-267-8097

Anonymous Information

Offices

- Ministry of Labour, Training and Skills Development Offices
- Regional Offices

Ontario Ministry of Labour
400 University Avenue,
14th Floor
Toronto ON M7A 1T7

Got a question? You might find your answer in our Frequently Asked Questions.

- [What are my Employment Standards rights?](#)
- [How do I file an Employment Standards claim?](#)
- [What are my workplace health and safety rights and responsibilities?](#)
- [What can a worker do about unsafe conditions at work?](#)
- [Where can I get collective agreements?](#)

The Employment Standards Information Centre and the Health & Safety Contact Centre provide services in many languages.

As outlined in our [Accessible Customer Service Policy](#), we are committed to providing accessible customer service. On request, we can arrange for accessible formats and communications support.

All information provided anonymously by third parties to the Employment Standards Information Centre about possible violations is passed to the appropriate Ministry staff for review and for possible proactive activity.

It is important to note that an individual who provides anonymous information to the ministry would not have the right to an appeal if he or she was dissatisfied with the outcome of Ministry enforcement activity unless an order was issued on his or her behalf.

If you have additional questions about the ESA please call our Employment Standards Information Centre at 416-326-7160 or toll-free at 1-800-531-5551.