School Bus Safety

Features
- School Bus Inspections
- Top 10 Construction Hazards
- High-Visibility Clothing
- Regulation Changes
- Emergency Response Planning
- Reaching Young Workers
- Safety Groups Program
- Annual General Meeting

A specialized approach to health and safety
A flatbed driver was covering a load of steel with a large tarp. While pulling hard on the tarp to unfold it, he felt a sudden pain in his right shoulder. This injury resulted in extensive therapy and several days off work.

 restrained

A flatbed driver was covering a load of steel with a large tarp. While pulling hard on the tarp to unfold it, he felt a sudden pain in his right shoulder. This injury resulted in extensive therapy and several days off work.

**Explain dangers**
Covering a load with tarps and removing them afterwards can be hard work for flatbed truck drivers. A tarp can weigh up to 100 pounds and be difficult to handle, especially if the load you’re covering is bulky or uneven or if the weather is windy, wet, or icy.

Tarping a load manually can put a driver at risk of:
- Falling from heights while climbing on top of the load
- Slipping or tripping on the tarp or straps
- Developing a musculoskeletal disorder (MSD) in the back, neck, shoulders, muscles, or joints from lifting and pulling, bending and reaching, overexertion, and working in awkward positions.

**Identify controls**
- If possible, do not climb on top of the load to spread the tarp manually. Instead, use equipment such as:
  - An overhead tarping system that lifts and spreads the tarp manually over the load
  - A forklift that places the tarp on top of the load.
- If you have to climb on top of the load to spread the tarp manually, never stand up or walk around. Crawl on your hands and knees instead. If possible, use a fall arrest system in a dedicated tarping area.
- Get help from other workers and plan the lift together.
- Use small, light tarps instead of large, heavy ones. It takes less physical exertion to cover a load with three small tarps than with two large ones.
- Learn proper tarping techniques such as where to place and unfold the tarp, how to tuck in the folds, where to connect the bungee cords, etc.
- Use a detachable ladder with handles or fold-out steps to get on and off trailers.
- Maintain 3-point contact when getting on and off trailers.
- Climb on and off the flatbed from the back of the trailer or the catwalk. Don’t jump down.
- When weather conditions are windy, park the flatbed close to a building to block the wind and prevent the tarps from blowing around as much.
- Stand with your legs spread apart for balance before pulling the tarp.
- Get a firm grip on the tarp. Do not just hold the ropes—they can slip or break.
- Use both hands to pull the tarp in order to prevent overexertion.
- Keep your hands close to your body at about waist height to prevent overreaching.
- Wear non-slip gloves to maintain your grip.
- Wear footwear that is appropriate for the weather conditions.

**Demonstrate**
- Demonstrate the proper tarping techniques with the crew.
- Ask them to describe any problems they have had with tarping loads.
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On the cover...

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School buses and school purposes vehicles: The importance of a pre-trip inspection 

Top 10 construction hazards 

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On the cover...

With school starting up, it’s a perfect time to look at the importance of having a pre-trip vehicle inspection procedure for school buses and school purposes vehicles.
Part of an inspection involves performing operational tests to confirm whether the major mechanical components of the vehicle are working properly. For example, to check whether the parking brake is working properly, engage the parking brake fully and try to move the vehicle. If the vehicle can be moved forward or backward easily, then the parking brake is not working properly.

To test the service brakes, move the vehicle forward at walking speed and apply the brakes to bring it to a complete stop. The vehicle should stop in a straight line, and the steering wheel should not pull to the left or right. The brake pedal should not feel spongy, and there should be no grinding or thumping noises. If excessive pressure must be exerted on the pedal to bring the vehicle to a stop, that also indicates a problem. Inoperative service or parking brakes are a major defect, so if any issues are found, they must be fixed before the vehicle can be driven.

Documentation

Part of the pre-trip inspection will be to check the vehicle’s documentation folder, which must contain:
- a signed copy of the ownership, including the plate portion
- original proof of insurance
- a copy of the operator’s CVOR certificate
- current annual inspection certificates (six months and one year).

Operators or drivers can use the Daily Pre-trip Inspection Form on the next page to do their inspections. The list of systems and components was taken from column 1 of the Daily Inspection of School Purposes Buses (Schedule 5) found in Regulation 199/07. Refer to columns 2 and 3 of Schedule 5 for a list of the minor and major defects for each system and component that may be found during an inspection. A vehicle may be driven with a minor defect as long as the defect is recorded in the inspection report. If a major defect is found, however, the vehicle must be repaired first.

After finishing the daily vehicle inspection, the driver must complete the inspection report properly and carry it on board. And if the vehicle will be driven farther than 160 km from the driver’s starting point, the driver must carry an hours-of-service logbook.

By carefully conducting these types of inspections, as well as observing the condition of the vehicle while driving, operators will be fully aware of any problems before they become serious hazards. Remember to keep a copy of the daily inspection reports for at least six months in case an inspector or a police officer requests them.

With school starting up, drivers of school buses and other school purposes vehicles are once again getting into their fall routine. Drivers and their passengers are only as safe as the vehicles they are riding in. This makes it a perfect time to look at the importance of having a pre-trip vehicle inspection procedure.

Regardless of a driver’s experience and skills, driving an unsafe vehicle is a hazard for everyone on the road. Vehicle inspections are designed to ensure that every motor vehicle is in safe operating condition. A thorough commercial motor-vehicle inspection is a three-stage process, involving pre-trip, in-trip, and post-trip inspections. However, we’ll just be looking at pre-trip inspections.

Daily pre-trip inspections

A daily pre-trip inspection or “circle check” is mandatory for school buses and school purposes vehicles in order to identify problems before they lead to a breakdown or a collision. Each inspection is only valid for 24 hours and must include every system and component listed on the daily inspection schedule. School buses must follow Schedule 5, while school purposes vehicles must follow Schedule 6. These inspection schedules are found in Regulation 199/07: Commercial Motor Vehicle Inspections, which is under Ontario’s Highway Traffic Act.

School buses and school purposes vehicles

The importance of a pre-trip inspection

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## Daily Pre-trip Inspection Form

<table>
<thead>
<tr>
<th>Defect(s) #</th>
<th>Minor Defects</th>
<th>Major Defects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Air Brake System</td>
<td>Minor Major</td>
<td>Y N</td>
</tr>
<tr>
<td>2. Alternating Overhead Lamps</td>
<td>Minor Major</td>
<td>Y N</td>
</tr>
<tr>
<td>3. Doors and Windows, other than Emergency Exits</td>
<td>Minor Major</td>
<td>Y N</td>
</tr>
<tr>
<td>4. Driver Controls</td>
<td>Minor Major</td>
<td>Y N</td>
</tr>
<tr>
<td>5. Emergency Exits</td>
<td>Minor Major</td>
<td>Y N</td>
</tr>
<tr>
<td>6. Emergency Flares, Lamps or Reflectors</td>
<td>Minor</td>
<td>Y N</td>
</tr>
<tr>
<td>7. Exhaust System</td>
<td>Minor Major</td>
<td>Y N</td>
</tr>
<tr>
<td>8. Exterior Body and Frame</td>
<td>Minor Major</td>
<td>Y N</td>
</tr>
<tr>
<td>9. Fire Extinguisher</td>
<td>Minor Major</td>
<td>Y N</td>
</tr>
<tr>
<td>10. First Aid Kit</td>
<td>Minor Major</td>
<td>Y N</td>
</tr>
<tr>
<td>11. Fuel System</td>
<td>Major</td>
<td>Y N</td>
</tr>
<tr>
<td>12. General</td>
<td>Minor Major</td>
<td>Y N</td>
</tr>
<tr>
<td>13. Heater / Defroster</td>
<td>Minor Major</td>
<td>Y N</td>
</tr>
<tr>
<td>14. Horn</td>
<td>Minor</td>
<td>Y N</td>
</tr>
<tr>
<td>15. Hydraulic Brake System</td>
<td>Minor Major</td>
<td>Y N</td>
</tr>
</tbody>
</table>

### Defect(s) #

### Minor Defects

### Major Defects

---

### Remarks

---

### Repairs made

- Y
- N

---

### Performed by:

---

### Documentation

- CVOR
- Permits
- Insurance
- Registration
- Driver’s Licence
- Inspections

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### I declare that the vehicle listed above has been inspected in accordance with Schedule 5 of Regulation 199/07 under the Highway Traffic Act (HTA).

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### Inspector Signature

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### Date

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**NOTE:** For a list of minor and major defects, refer to Schedule 5 in O. Reg. 199/07: Commercial Motor Vehicle Inspections under the Highway Traffic Act.
Scaffolding

The frequency and severity of injuries involving scaffolds show that this is one of the more serious safety issues in Ontario construction. Ensure that workers who work on or near scaffolding are aware of hazards such as falling debris, electrocution from powerlines, and falls. More importantly, take steps to control these hazards.

Set up a scaffold on level, compacted soil at a safe distance from overhead powerlines. A proper scaffold must have guardrails on all platforms, have platforms that are fully planked, and have all required components installed (base plates, mudsills, braces, coupling devices, etc.).

If there is a danger of falling debris, cordon off the area and put up Danger—Work Overhead signs. It’s also important to protect workers from falling while they are erecting or dismantling scaffolds, and whenever guardrails are removed temporarily.

Scaffolds must be inspected, maintained, and used according to the manufacturer’s instructions or the engineering and design requirements. A competent worker (i.e., a worker who is qualified because of knowledge, training, and experience to perform the work) must supervise the erection, alteration, and dismantling of a scaffold (O. Reg. 213/91, s. 130-131).

Ministry of Labour (MOL) inspectors have seen it all. Not much surprises them, except for the fact that the main hazards they see on construction sites have remained the same for years. “There’s been an improvement in how often we encounter these hazards, but the same things are still occurring,” says Michael Chappell, Provincial Co-ordinator for the MOL’s Construction Health and Safety Program.

When asked what needs to happen to improve health and safety on construction sites, Mr. Chappell highlights supervision.

Supervisors need to be more hands-on. My experience with supervisors is that they are technically very good at their job in terms of getting something built correctly and getting it done. When they rely on workers who are also highly skilled, they allow them to work with a low level of supervision. Obviously, this isn’t producing the results for safety.

Mr. Chappell goes on to explain that “in a factory environment with 100 workers, you would see at least 10 supervisors walking around. In construction, you may have one or two.” One supervisor may be responsible for two or three smaller jobs and must split time between them. “Fundamentally,” he says, “the industry needs to think about how they supervise this work.”

With Mr. Chappell’s help, we have put together a top-10 list of the most common hazards MOL inspectors find on construction projects.

1. **Scaffolding**

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Falls

Falls are the main cause of critical injuries and deaths for Ontario construction workers.* All workers who are exposed to fall hazards must be protected (O. Reg. 213/91, s. 26). The best protection is a guardrail system. If this is not practical, then a fall protection system must be used.

Workers who may use a fall protection system must take approved Working at Heights training followed by site-specific training at the workplace. Site-specific training involves identifying specific hazards and familiarizing employees with the fall protection equipment that they will use on the jobsite.

A competent worker must inspect fall arrest equipment for damage, wear, and obvious defects before each use. Ensure this inspection is carried out according to the manufacturer’s instructions and meets the requirements of the CSA standard. If workers are required to use a fall arrest system, an employer must develop a written Fall Arrest Rescue Plan and post it on site. It is also good practice to have a written Fall Protection Work Plan.

Exposure to occupational health hazards

Before July 1, 2016, the occupational exposure limits (OELs) under Regulation 833: Control of Exposure to Biological or Chemical Agents did not apply to construction projects (see page 12 for more information on this change to the regulations). Now that they do, the MOL has established a protection standard for reducing and eliminating respiratory hazards in the construction industry. It is important for workers, supervisors, and employers to understand these kinds of health hazards before they decide how to upgrade respiratory safety in the workplace. As a starting point for compliance, employers should do an assessment to determine exposure levels and the components of atmospheric hazards.

Lack of personal protective equipment

Employers are responsible for supplying their workers with the personal protective equipment (PPE) prescribed by law (OHSA, s.25(1)). Although many workers take their own PPE to a job, the employer is ultimately responsible for making sure that the proper PPE is used and is maintained in good condition. Head, eyes, ears, and hands must be adequately protected from falling or flying objects and sparks, dust, fragments of material, or anything else that can cause head injuries or burns. Where there’s a risk of head injuries from side impacts, a Class E, Type 2 hard hat offers the best protection (for more information visit ihsa.ca and click on FAQs). Not wearing PPE is not an option—neither is wearing worn out, damaged, or inadequate PPE.

Did You Know?
As of July 1, 2016, legislation requires that all portable ladders at a project meet the design, performance, test, and marking requirements of a Grade 1, Grade 1A, or Grade 1AA ladder in the CSA Standard Z11-12: Portable Ladders. (O. Reg. 213/91, s.80(1))

Ladders

Many of the falls on construction sites are from ladders. Every ladder must be secured and safely positioned at the correct angle. Before a ladder is used, it must be inspected for damaged parts, including hinges, rungs or steps, side rails, and feet. Side rails should extend at least 900 mm (3 ft) above the landing and be secured at the top. Do not work from a ladder unless an assessment has been done to determine whether there are safer alternatives such as scaffolding or an elevating work platform.

*Source: WSIB/EIW Snapshot Current to March 2016
Fire safety is crucial on any construction project. With wood being used for buildings up to six storeys tall, this becomes even more important. Fire extinguishers must always be visible, marked, and easily accessible. They must also be well-maintained, inspected regularly, and refilled or replaced immediately after use. Regulations require that every worker who may need to use fire extinguishing equipment be trained in its use (O. Reg., 213/91, s.52). The regulation also specifies the locations and circumstances where fire extinguishers must be provided.

Workers should be trained on the fire hazards present on the jobsite and what to do in an emergency. Fire emergency plans should specify what each person should do, provide evacuation routes, and be reviewed regularly. In the event of a fire, every worker should know immediately where the closest exit is and an alternative route if the primary exit is blocked.

Ontario's Occupational Health and Safety Act requires employers to provide training as prescribed and to maintain equipment, materials, and protective devices in good condition (OHSA, s. 25-26). Without proper documentation such as maintenance, inspection, and training records, however, the employer cannot prove that every reasonable precaution was taken to keep workers safe. Keeping records can provide evidence of due diligence and can help the employer identify any hazards and remedy them before they can cause a problem. Records must also be kept that document a worker’s injuries or medical treatment. As best practice, maintain a site log book. It tells the story of a project in case something goes wrong or there are questions about it later.

Confined spaces

Workers in confined spaces must be aware of silent, invisible hazards. Fatalities are usually the result of oxygen-deficient, toxic, or combustible atmospheres. Confined spaces must be tested before workers enter them and must be continuously monitored with a properly configured and calibrated monitor. A trained rescue team must be available to rescue workers quickly. A delay of just five minutes can change a rescue operation to a recovery operation of workers who succumbed to the atmospheric hazard in the confined space.
Lack of training

A key to preventing many workplace injuries is frequent and effective training programs for employees. Recent changes to the Occupational Health and Safety Awareness and Training regulation under the OHSA have made it mandatory for both workers and supervisors to complete a basic training program (O. Reg. 297/13, s.1-2). In addition to the training required by law, there are programs for almost every construction safety topic. Download IHSA’s Training Requirements Chart (W001) for more information.

However, it’s not enough to just accept a training card as assurance that a worker has been properly trained. Employers and supervisors should routinely ask for a demonstration of health and safety skills to ensure that everyone on the project knows how to protect themselves and their co-workers.

If you are a construction supervisor, it’s your responsibility to set the expectations for the jobsite—including health and safety requirements. If you’re a worker, follow the rules and job procedures set out for you. If you’re an owner or senior manager, think about the changes you can make when it comes to how projects are supervised. From regular orientation and training to daily safety talks, make sure everyone has the knowledge and tools they need to work safely.

Welding

Welding is a common activity on construction projects, and welding injuries, from minor flash burns to eye injuries, are common as well. Unfortunately, many welders choose not to use PPE because they find it too uncomfortable or think the job is too small and doesn’t require it.

These days, welders have many more options—in terms of lightweight, flame-retardant materials and safety accessories—to suit up for the job. Welding helmets should be equipped with the proper filter lens in either a passive or an auto-darkening style to shield against the arc’s bright light. When flame cutting, eye protection such as safety glasses or goggles must always be worn.
Those who work in high-traffic areas such as on busy roads or construction sites, near utility lines, and around loading docks or airport runways are at risk of being struck by moving vehicles. Construction workers, roadworkers, utility workers, and transportation workers need to stand out so that drivers and equipment operators can see them. That’s why they are required by law to wear high-visibility clothing.

The Construction Projects regulation states that any worker who may be endangered by vehicular traffic on a project must wear a garment that covers the upper body and provides a high level of visibility. The specifics of the garment are found in section 69.1 of the regulation (213/91). For example, if the garment is a vest, it must be adjustable and have a side and front tear-away feature.

Although Ontario workplaces must comply with the regulations, following the CSA standard for this type of clothing can also be acceptable in some cases. An updated version of *CSA Z96-15—High-Visibility Safety Apparel* was released last year and can be a helpful resource. It specifies how this type of clothing should reflect light, what colours can be used, and how much of it a person needs to wear. It also provides advice on the selection, use, and care of high-visibility safety material and recommendations for hazard assessments.
Background material
There are two main things to consider when buying high-visibility clothing—the background material and the bright “retroreflective” stripes or bands that are on it. According to the construction regulation, the main material of the garment must be fluorescent blaze or international orange in colour. Fluorescent blaze is also known as safety orange, which is used on road signs and hunting gear. International orange, on the other hand, has a darker, more reddish tone.

This background material gives drivers and equipment operators the best chance of seeing workers during the daytime. Fluorescent colours use more of the visible light spectrum than other colours. They absorb sunlight and reflect the energy back to us as visible light, which we see as a glow. Even on a cloudy day or at dusk or dawn, fluorescent colours will appear brighter. And because orange is a complementary colour of blue, it provides the best contrast against the colour of the sky and many other background colours.

Unlike the regulations, the CSA standard allows some background colours other than orange. These colours are accepted by the Ministry of Labour (MOL) as being in compliance. As Michael Chappell, Provincial Co-ordinator of Construction Health and Safety for the MOL, explains, “We accept all background colours that are listed in the CSA standard in addition to those listed in the regulation. We will shortly be issuing a technical bulletin to stakeholders confirming this position.”

Retroreflective stripes or bands
Like the background material, the retroreflective stripes or bands that are required on high-visibility clothing help increase the visibility of workers. However, they are more effective at night or in low-light conditions. Retroreflective stripes reflect the light from oncoming headlights back to the driver or operator so that a worker can be seen in the dark.

According to the regulations, these stripes must be both retroreflective and fluorescent. The front and the back of the garment must have two yellow stripes that are 5 cm wide. The yellow area must be at least 500 cm² on the front and 570 cm² on the back. On the front, the two stripes must be vertical, centred, and approximately 225 mm apart (as measured from the centre of each stripe). On the back, they must be arranged in a diagonal “X” pattern. For nighttime work, additional retroreflective silver stripes or bands are required on each arm and leg.

Risk assessment
Before choosing high-visibility clothing, a needs analysis should be conducted to assess the risks that need to be controlled. Workers who require greater visibility, such as roadway construction workers, should wear clothing that is highly visible under their specific work conditions. The CSA standard also recommends conducting a risk assessment in order to evaluate the worksite for known or potential hazards that a worker may encounter while performing a job or task.

Under this type of assessment, it may be helpful to ask the following questions:
- What type of work is being done?
- Is it indoor or outdoor work?
- How much traffic are workers exposed to?
- Will workers be exposed to excessive heat, flame, or arc flashes?
- What lighting conditions might be a factor?
- What other controls are in place to protect workers?

Knowing the answers to these questions may help a company decide what kind of high-visibility clothing to buy in order to best meet their needs and protect their workers.

How IHSA can help
IHSA’s Construction Health and Safety Manual (M029) has a chapter devoted to high-visibility clothing. In addition, the ihsa.ca website has a Traffic Control topic page that explains the requirements for garments and gives some training recommendations and other information about high-visibility clothing.
Regulation changes mean more protection for Ontario workers

On July 1, 2016, many changes to regulations under Ontario’s Occupational Health and Safety Act (OHSA) came into effect. Most of the changes involved occupational health hazards, such as exposure to noise and chemicals. The health effects of these hazards often take time to develop. However, they are the cause of more illness and deaths than more immediate safety hazards such as falls and motor-vehicle incidents. For example, between 2005 and 2014, Ontario construction experienced 202 fatalities from traumatic events but 495 fatalities from occupational diseases.*

Below you’ll find a summary of the changes to the existing regulations, as well as an outline of the new regulation. To view and download the most up-to-date version of the OHSA and the regulations under it, visit the e-laws website at [ontario.ca/laws](http://ontario.ca/laws).

Noise—Regulation 381

Noise-induced hearing loss (NIHL) is the most common occupational disease suffered by workers in Ontario. It is also 100% preventable if the proper precautions are taken. Regulation 381 applies to any workplace that falls under Ontario’s OHSA. It requires employers to take all measures reasonably necessary to protect workers from exposure to hazardous noise levels.

The maximum noise exposure level is a time-weighted average of 85 decibels (dBA) over an 8-hour shift. For noise levels above this exposure limit, the employer must determine if engineering or administrative controls can reduce the noise level. These controls may include such things as using quieter tools and equipment, installing noise barriers or sound absorbers, and rotating workers between job tasks.

If no other controls are practical or if certain circumstances exist (see O. Reg. 381, s.6), the employer can require workers to wear hearing protection devices (HPDs). Workers who have to wear HPDs must receive training that includes instruction on the limitations of HPDs, proper fitting, inspection, maintenance, and cleaning and disinfection, if applicable.

Workplace Hazardous Material Information System—Regulation 860

You may have heard of the Globally Harmonized System (GHS) for Classification and Labelling of Chemicals. It’s an internationally recognized system to ensure that the labels, safety data sheets, and classifications used for hazardous products will be recognized and understood across borders. In February 2015, Health Canada introduced changes to the federal Hazardous Products Act (HPA) and regulations that helped Canada better align with the requirements of the GHS. These changes specified new hazard classes, new pictograms used to communicate the hazards, new required elements on labels, and a new format for safety data sheets (formerly called material safety data sheets).

On July 1, 2016, changes to Ontario’s provincial Workplace Hazardous Materials Information System (WHMIS) legislation took effect. The changes to this provincial regulation align with the new federal requirements of WHMIS 2015. They specify the duties of workers and employers as they relate to the new WHMIS 2015. IHSA has created a WHMIS 2015 Poster (P003) showing the new pictograms and hazard classes. It’s a helpful resource to post at your workplace.
Regulation 860 now specifies two time periods for transitioning to WHMIS 2015:

1. **First Transition Period**
   (July 1, 2016 to May 31, 2018)
   Employers may receive and use hazardous products with labels and safety data sheets (SDSs) that comply with WHMIS 1988 or WHMIS 2015. However, workplaces are encouraged to change over to the new WHMIS 2015 labels and SDSs before this transition period ends.

2. **Second Transition Period**
   (June 1 to Nov 30, 2018)
   Employers may continue to use products that are already in the workplace with WHMIS 1998 labels and MSDSs. However, new products received must have WHMIS 2015 labels and SDSs. After November 30, 2018, only products that comply with WHMIS 2015 rules can be used.

Employers are required to educate their workers on whichever system is used at their workplace. So until all suppliers and all hazardous products already in the workplace meet the WHMIS 2015 requirements, workers should be trained on both systems.

IHSA’s current half-day in-class WHMIS training program covers both the old WHMIS 1988 and new WHMIS 2015 systems. The program will remain this way throughout the transition periods. For more information about our WHMIS course, visit [ihsa.ca/training](http://ihsa.ca/training).

**Control of Exposure to Biological or Chemical Agents—Regulation 833**

Regulation 833 sets out requirements for protecting workers against chemical exposure. This regulation has applied to various workplaces, such as mines and industrial projects, for many years. However, construction projects were exempt from the requirements of this regulation. The Ministry of Labour (MOL) removed this exemption to better protect workers in the construction industry against exposure to hazardous chemicals. This change came into effect on July 1, 2016.

Under Regulation 833, construction employers have an explicit duty to ensure that workers are protected from dangerous levels of various chemical agents. The occupational exposure limits (OELs) of these agents are set out in the regulation.

Before using personal protective equipment to protect workers from overexposure to hazardous agents “at the worker”, employers should consider engineering controls “at the source” or “along the path”. For example, if using a diesel generator, place it far away from workers and ensure that the work area is properly ventilated.

Protecting construction workers from these types of exposures could significantly reduce the number of workers who will develop an occupational disease.

**Construction Projects—Regulation 213/91**

Section 47 of the Construction Projects regulation (213/91) was amended to protect workers from exposure to dangerous levels of carbon monoxide (CO) gas. The changes prohibit operating internal combustion engines in excavations, buildings, or other enclosed structures (excluding tunnels) unless:

- Exhaust gases and fumes are discharged directly outside
- Adequate natural or mechanical ventilation is used to ensure gas doesn’t accumulate
- Air testing is done by a competent worker to ensure that airborne concentrations of CO do not exceed the exposure limits.

Air testing must be done in accordance with a written strategy developed by the employer in consultation with the Joint Health and Safety Committee (JHSC) or Health and Safety Representative. The time-weighted average exposure limit of CO gas is 25 parts per million (ppm) for an 8-hour shift, 75 ppm for any period of 30 minutes, and 125 ppm at any time.

Another amendment to the Construction Projects regulation was the addition of a section on rotary foundation drill rigs (sections 156.1 to 156.9). Besides a new definition, changes include new requirements for the use of drill rigs, new technical and operational requirements for certain elements of a drilling operation, and mandatory health and safety measures and procedures.

These changes will help reduce the number of injuries and fatalities related to working with this type of heavy equipment. In addition, new training requirements will help ensure that only qualified workers operate drill rigs and that proper pre-planning takes place.

*Source: WSIB/EIW Snapshot Current to March 2016*
A quick and efficient response to an emergency will
• prevent the present situation from getting worse
• protect workers and the public from further danger and injury
• provide first aid to injured workers
• protect material and equipment from further damage
• isolate and secure the area to ensure that nothing is disturbed.

In Canada we have an Emergency Preparedness Week in May, and the United States has an Emergency Response Month in September. Both countries use these times to remind us all that we need to be prepared. When everything is going well, we tend to forget the importance of planning for when things go wrong. And when things go wrong, it’s too late to start making a plan—we need to be able to act quickly.

This article is intended to help your company plan for an emergency. If you already have a plan, it can help you check that it is up-to-date, as well as remind you to train those who will need to follow the plan.

Ontario’s Construction Projects regulation requires the constructor to establish emergency response procedures for every project and ensure they are followed (O. Reg. 213/91, s.17). The constructor must also review the emergency procedures with the Joint Health and Safety Committee (JHSC) or Health and Safety Representative and post them in a conspicuous place at the project. This means that the planning for emergencies must begin before any work starts on the project.

An emergency response plan should cover all possibilities. It should ensure the safety of individuals and, if possible, the protection of property. The following topics should be included in your plan:
• Hazard identification and assessment
• Emergency resources
• Communication systems
• Administration of the plan
• Emergency response procedures
• Communication of the procedures (training)
• Debriefing and post-traumatic stress procedures

The emergency plan should also identify responsibilities and any specialized training needed by those on site, such as high-angle rescue or containment of hazardous materials.
Tips for emergency planning

- Keep your plan up-to-date and post it in several places on the worksite. When a plan changes or is updated, inform everyone who may be affected.
- Some constructors and contractors hand out emergency response cards to workers after they receive jobsite orientations. The cards generally include:
  - a general overview of the plan
  - emergency contact numbers
  - assembly or muster areas (i.e., where everyone should gather for head counts)
  - instructions, resources, etc., that will help the worker react safely in the event of an emergency.
- Put a review of the emergency response plan in your rotation of safety talks.
- Test the plan—Emergency plan drills will help you evaluate the plan and show where improvements are needed or something has been missed.

How IHSA can help

IHSA is committed to the reduction of injuries and fatalities in the workplace. We have several resources available to help you put together an emergency response plan for your company. The Emergency Response Planning for Construction Projects booklet (B030) can be downloaded from our website. As well, you can order our Emergency Response Poster (P103) and post it on your jobsite.

IHSA also has a Policy and Program Resources section on the website with templates to help you develop or update your company’s health and safety program. Visit the emergency preparedness page to find checklists, guidelines, templates, and links to other emergency planning materials:

ihsa.ca/resources/emergency_preparedness.aspx

Post IHSA’s Emergency Response Poster (P103) on your jobsite
Reaching young workers on day one

Raising safety awareness during college orientation week

As the demand for workers in the skilled trades continues to grow in Ontario, it’s no surprise that colleges across the province are seeing an increase in enrolment for skilled trades programs. In London, Fanshawe College sees an increase of about 35 students each year seeking a career in construction. In total, some 700 students are taking part in the training programs offered at Fanshawe, and each of these programs has a focus on developing the construction workforce of the future.

On Wednesday, September 7, 2016, the London and District Construction Association (LDCA) hosted a barbecue in Tech-Alley on the London campus. The LDCA represents a variety of small, medium-sized, and large construction companies in the London area. Its executive director, Mike Carter, is always happy to sponsor such an event, and there’s no better time to start getting to know these students than on day one.

“Our affiliation with Fanshawe is very deep and very important. If you look at our Board of Directors, the majority of them are Fanshawe graduates, and upwards of 40% of the businesses in the London district are populated by the talented students that come from Fanshawe programs. The programs here have turned out to be tremendously successful for the members of the LDCA.”

Although the LDCA’s involvement with these students kicks off with a barbecue, over the years it has led to co-op placements with LDCA members and career opportunities for graduates. “This is the beginning of a multi-year process for us with the incoming generation of students,” says Carter.

It’s a generation that Carter believes will have some outstanding and unique opportunities in the construction sector. He says that with the advances in and growing use of technology over the past few years, the construction industry is taking off and growing at an exponential rate. “I believe these students are entering into construction at the most exciting period, because I think that building technology is going through a massive revolution.”

Over the next few years, these students will be introduced to the skills they’ll require in construction. But that’s only a small part of what they need to learn. They will also be introduced to the business of construction and the expectations and demands of an ever-growing infrastructure in the surrounding areas.
The habits they learn now will serve them throughout their future careers. But most importantly, they will be introduced to the safety culture that they are expected to cultivate:

*The most important expectation we have as an association, the most important expectation our member companies have, and the most important message these students will learn at Fanshawe, is that everyone needs to go home at the end of the day.*

Alongside the LDCA, representatives from IHSA were on hand as a part of the orientation process. They helped introduce this next wave of construction industry leaders to the materials, training, and mandate of IHSA. IHSA representatives also had the mobile classroom on display and shared space with the Ministry of Labour, where they showcased some of the things to look forward to in this sector and tried to get the students thinking about safety before their training even begins.

Fanshawe’s president, Peter Devlin, is extremely happy that IHSA is a major presence at this event:

*We’re very proud that we emphasize safety right out front and that we can assist in the development and strengthening of the relationships our students will get with the associations they will come to depend on. Starting the friendship in the very beginning with industry stakeholders is evidence of how important these students are to Fanshawe, and we know that investing in these relationships will help them to become successful in their career choices.*
There’s so much to gain by joining a Safety Group

As a business owner, you’re always looking for ways to improve your bottom line. As an employer who cares about your employees, you also want to make sure that everyone gets home safe at the end of the day. If there was a simple way to do both of those things, wouldn’t you jump at the chance? If you haven’t joined one of IHSA’s Safety Groups, then you’re missing out on a great opportunity.

What is the Safety Groups program?

Safety Groups is a program administered by the Workplace Safety and Insurance Board (WSIB). Each Safety Group is made up of companies in the same industry that have joined in order to share their health and safety experience and resources and help one another improve their prevention systems. It also provides great networking opportunities.

Each Safety Group has a sponsor that oversees the group, organizes meetings and leadership workshops, offers guidance on action plans, and keeps track of the group’s achievements and goals. IHSA currently sponsors two Safety Groups: Construction/Electrical and Utilities Safety Group, and Transportation Safety Group. IHSA has also joined forces with PSHSA, WSN, and WSPS to sponsor a Northern Ontario Safety Group.

Who should join?

If you are a new firm or a small firm that is still establishing its health and safety systems, Safety Groups is an ideal program for you. It’s an opportunity to learn from other businesses that are operating in the same industry and region. If you are a well-established company that is doing a review or audit of your current systems, Safety Groups is a great way for you to compare your operations with others in your industry and align them with the best industry practices. The end result is a safer industry overall, and that’s good for everyone.

What are the benefits?

Each Safety Group focuses on five key areas and is rewarded for making improvements in those areas. However, there are no penalties if the group does not succeed. The WSIB treats each Safety Group as one large company. It rewards the success of the group as a whole with rebates for each member on top of any of the firms’ standard experience-rating rewards.

But there is more to Safety Groups than financial rebates. A survey found that participants received many other benefits from the program. They included:

- fewer lost-time injuries and a significantly lower severity rate than for firms not in the program
- the knowledge, skills, and motivation to recognize health and safety problems and initiate solutions
- improved employee perception and understanding of workplace health and safety.

How do you join?

For more information on Safety Groups, including how to become part of the program, visit the Safety Groups page on IHSA’s website. It doesn’t matter whether your company is large or small, or what your safety record is. What matters is your commitment to improve. Act soon because the deadline to join a Safety Group for 2017 is December 15. Don’t let an opportunity like this slip through your hands.
As always the awards segment of the meeting highlighted the success of IHSA’s member firms in improving health and safety. A variety of awards and certificates were presented, including the Transportation Achievement Awards, ZeroQuest™ Awards, President’s Awards, and Certificates of Recognition (COR™).

In addition, the Gil Samson Award was presented to the Occupational Disease and Research Labour-Management Health and Safety Committee for its significant contributions to the advancement of occupational health and safety. The committee helped bring forward significant regulatory changes such as:

- Control of Exposure to Biological or Chemical Agents Regulation (833)—Now applies to construction projects.
- Section 47 of Construction Projects Regulation (213/91)—Stronger requirements for protecting workers against overexposure to carbon monoxide.
- New Noise Regulation (381/15)—New requirements for protecting workers from overexposure to noise in construction.

The meeting emphasized that through its various components, IHSA will continue to find new and innovative ways to ensure that Ontario remains one of the safest places to work.
SHOW YOUR CUSTOMERS YOU ARE COR™ CERTIFIED!

Safe and successful companies have the Certificate of Recognition.

The Certificate of Recognition (COR™) is aimed at driving positive workplace behaviour and practices that lead to improved health and safety performance. For firms that receive COR™ certification through IHSA's Ontario program, a variety of promotional merchandise is now available. These items are a great way to let your employees know that you are proud of their safety achievements and to show prospective buyers that your firm is COR™ certified.

**CORLB—12-Can Cooler $29**
Dimensions: 8” H x 10” W x 7 1/2” D
Made of dobby nylon, 600D polyester, foam-insulated with heat-sealed liner and simulated leather accents. 12-can capacity cooler

**CORPB—Power Bank $25**
Dimensions: 1” W x 4” H x 0.875” D
2200 mAh power bank, grade-A battery. Features a micro USB cable and USB port for charging the power stick (5-6 hour charge time).

**CORWB—Water Bottle $15**
800 ml (27 oz), made of stainless steel

**CORVM—COR Vehicle Magnet $25**
24” W x 14” H 30 mil magnet
Items are available only to those firms that have achieved and maintained COR™.

Don’t get left behind
IHSA.CA/CORGEAR