

# Industrial Establishments Regulation Amendment Proposal

## Summary of Proposal

The Ministry of Labour (the ministry) is considering and proposing various amendments to [Regulation 851](#) (Industrial Establishments) under the [Occupational Health and Safety Act](#) (OHSA). Regulation 851 applies to a variety of different workplaces in Ontario, including offices and office buildings, factories, arenas, shops, restaurants and logging operations. The regulation sets out sector-specific requirements that protect the health and safety of Ontarians who work in these workplaces.

In developing this proposal, the Ministry of Labour has focused on amendments related to working at heights, a high-risk activity that is one of the ministry's topic priorities. The ministry has, in partnership with our occupational health and safety system partners, developed an action plan to help reduce the number of injuries and fatalities due to falls in Ontario. Falls of less than three metres (under 10 feet) are among the leading causes of injuries resulting in workers missing time at workplaces in Ontario's industrial sector.

The ministry is also proposing amendments that would update and clarify certain existing provisions to ensure that the requirements reflect developments in processes and technology. The ministry is also proposing amendments that would add new requirements for equipment and hazards to Regulation 851, basing them on provisions already outlined in other sector-specific regulations under the OHSA. This would facilitate consistent application across Ontario workplaces and provide workers who are exposed to the same hazards with the same regulatory protections.

Specifically, the proposed amendments are intended to:

- Update existing requirements regarding guardrails, fall protection, protection against drowning, signallers, eyewash fountains and deluge showers to reflect current workplace practices, processes and technologies;
- Add new requirements for risk assessments and traffic management programs that are similar to recent amendments to [Regulation 854](#) (Mines and Mining Plants);

- Add new requirements for scaffolds and suspended access equipment, similar to existing requirements currently set out in [O. Reg. 213/91](#) (Construction Projects);
- Add new, specific requirements for storage racks and for high visibility safety apparel for signallers to improve worker health and safety and to improve clarity and transparency regarding compliance expectations; and
- Make additional amendments for clarification and to increase alignment between OHSA regulations.

The ministry is seeking your feedback on the content of this consultation paper, which includes your overall thoughts and impressions on the proposed amendments to Regulation 851, as well as targeted questions about specific aspects of certain proposals. Your feedback will be considered during the development of possible amendments.

There are a number of types of workplaces in Ontario that are not covered by Regulation 851 requirements, and that are also not construction projects, mines, mining plants or health care facilities. In addition to answering the questions in this consultation paper about how well the proposals would work in industrial establishments, please also consider how they might work in other workplaces in the province. This feedback will help shape future regulatory proposals from the ministry.

If there are additional issues or concerns about current requirements in Regulation 851 that are not addressed in this paper, please let us know about those as well. They may be considered as part of this or future regulatory proposals.

# Summary of Proposed Regulatory Amendments

## Risk Assessment

### *Rationale*

Workplaces that adopt and apply a risk-based approach are in a better position to more effectively and efficiently control workplace hazards. A process that involves all workplace parties and focuses on controlling the highest risk hazards can significantly reduce the level of risk associated with those hazards, which in turn can lead to reduced workplace illnesses and injuries.

There are requirements for employers to conduct risk assessments of the workplace and to develop and maintain written measures to control risks and, if practicable, eliminate hazards in sections 5.1, 5.2 and 5.3 of Regulation 854 (Mines and Mining Plants), but there are no similar requirements in Regulation 851. This proposal would create greater alignment between OHSA regulations by adopting similar requirements for industrial establishments of a certain size.

### ***Current Regulatory Requirements in Regulation 851 (Industrial Establishments)***

None.

### ***Proposed Amendments***

The ministry is proposing to add new provisions that would require employers at certain industrial establishments to assess and manage the risks of hazards that may arise from the nature of the workplace, the type of work or the conditions of work. These requirements would apply only to industrial establishments where twenty (20) or more workers are regularly employed.

The assessment would need to take into account circumstances that would be common to similar workplaces as well as those circumstances that are specific to the workplace.

An employer would need to reassess the risks as often as is necessary but at least annually to ensure that the measures continue to protect the health and safety of workers.

The results of the assessment and any reassessments would need to be provided, in writing, to the joint health and safety committee.

An employer would need to develop and maintain written measures to control the risks and, where practicable, eliminate the hazards identified in the assessment as likely to expose a worker to injury or illness. This would be done in consultation with the joint health and safety committee.

The written measures would include provision and use of:

- engineering controls;
- work practices;
- industrial hygiene practices;
- administrative controls;
- substitution or reduction (i.e., using one tool or device instead of another); and
- personal protective equipment, but only if the other measures listed above are not obtainable or are not practicable.

### ***Questions***

- Do you agree with this proposal? Why or why not?
- Do you agree with limiting the proposed requirements for risk assessment and written measures to industrial establishments with at least twenty (20) regularly employed workers? Why or why not?

## Scaffolds and Work Platforms

### *Rationale*

Scaffolding can provide workers safe access to work locations, creating a level and stable working platform and temporary storage for tools and materials to perform immediate tasks. There are provisions for scaffolds and work platforms in O. Reg. 213/91 (Construction Projects), but there are no similar requirements in Regulation 851, even though scaffolds may be used in industrial establishments (for example, to carry out maintenance tasks).

This proposal would add scaffolding requirements to Regulation 851, to ensure that scaffolding is erected, used and dismantled in a manner that affords the same protections to workers in industrial establishments or on construction projects.

### *Current Regulatory Requirements in Regulation 851 (Industrial Establishments)*

None.

### *Proposed Amendments*

The ministry is proposing to add new requirements to Regulation 851 regarding scaffolds that would be substantially similar to those found in sections 126 through 136.0.1 of O. Reg. 213/91, including:

- general design requirements for scaffolds;
- design rules for scaffolds mounted on castors and wheels;
- design rules for scaffolds over 10 or 15 metres;
- design and strength requirements for scaffold platforms and other work platforms; and
- general requirements for guardrails and means of access and egress.

To adapt these provisions for Regulation 851, any constructor duties set out in the O. Reg. 213/91 scaffold provisions would be assigned to the employer. Similarly, any references to the term “competent worker” would be replaced by “a worker with adequate knowledge, training and experience”. References to “project” would be replaced by “workplace”. These proposed modifications reflect that “constructors” are usually only present at an industrial establishment if a construction project is taking place, and that “competent worker” is not a defined term in Regulation 851.

Any references to “number 1 grade spruce” would be replaced by a reference to “number 1 grade spruce-pine-fir (S-P-F) or better” to reflect modern lumber grading as set out by the National Lumber Grades Authority. This organization is responsible for the establishment of Canadian lumber grading rules and standards. The required dimensions for sawn lumber planks would not change – they would have to be at least forty-eight millimetres thick by 248 millimetres wide.

A scaffold platform or another work platform that is 2.4 metres or taller would need to be equipped with an adequate guardrail system that would consist of a top rail, intermediate rail and toeboard. It would have to be capable of resisting the maximum force to which it is likely to be subjected.

A scaffold platform or other work platform would need to have stairs, runways, ramps or ladders to allow workers to access and leave the platform.

Requirements for centre pole scaffolds that are used for construction of silos (see sections 132 and 133 of O. Reg. 213/91) are not part of this proposal, and therefore would not be added to Regulation 851. Similarly, the special requirements for masonry units (see section 136 of O. Reg. 213/91) would not be added. These activities are specific to construction projects.

### **Questions**

- Do you agree with this proposal? Why or why not?
- Do you have any concerns about using sawn lumber planks that are of number 1 grade spruce-pine-fir (S-P-F) or better? Are these planks readily available?

### **Limit States Design**

#### ***Rationale***

The [Ontario Building Code](#) (OBC) no longer lists the “allowable unit stresses” for materials. Instead, the OBC uses the limit states design methodology to calculate structural strength.

This proposal would bring Regulation 851 into greater alignment with the OBC, current engineering practice, and similar requirements in O. Reg. 213/91 (Construction Projects).

#### ***Current Regulatory Requirements in Regulation 851 (Industrial Establishments)***

None.

#### ***Proposed Amendments***

In keeping with the design methodology set out in the OBC, the ministry is proposing that Regulation 851 reference the limit states design methodology rather than “allowable unit stresses” in the new proposed scaffold sections. This proposal would specify that:

- every scaffold would have to be designed and constructed to support or resist the maximum load or force to which it is likely to be subjected, determined using limit states design with a load factor of at least 3.0;
- every scaffold platform and other work platform would have to be designed, constructed and maintained to support all loads and forces to which it is likely to be subjected, and at least 2.4 kilonewtons per square metre determined using limit states design with a load factor of at least 1.5; and

- each component of a scaffold platform or other work platform would need to be capable of supporting a load of at least 2.2 kilonewtons determined using limit states design with a load factor of at least 1.5.

This proposal would still allow working stress methodology to be used as an alternate method of calculation, as long as the safety factors are at least equal to those required for the limit states design methodology set out in the regulation.

### **Questions**

- Do you agree with this proposal? Why or why not?
- Do you have any comments about the proposed load factors outlined above? Are they appropriate for scaffolds used in industrial establishments? Are they reasonably equivalent to the strength requirements for scaffolds currently set out in O. Reg. 213/91 (Construction Projects)?

## **Suspended Work Platforms and Boatswain's Chairs**

### **Rationale**

There are provisions for suspended work platforms and boatswain's chairs in O. Reg. 213/91 (Construction Projects), but there are no similar requirements in Regulation 851, even though this equipment may occasionally be used in industrial establishments (for example, to inspect the outer envelope of a water tank).

This proposal would add new requirements to Regulation 851 so that workers using suspended work platforms and boatswain's chairs are afforded the same protection, whether they are on a construction project or at an industrial establishment.

### **Current Regulatory Requirements in Regulation 851 (Industrial Establishments)**

None.

### **Proposed Amendments**

The ministry is proposing to add requirements to Regulation 851 regarding suspended work platforms that are substantially similar to those found in the Construction Projects Regulation.

This proposal would amend Regulation 851 to include similar requirements to those that are currently set out in sections 136 – 142.06 of O. Reg. 213/91, including:

- general design requirements for suspended work platforms;
- training requirements for workers who may use or inspect suspended work platforms;
- requirements for the testing of suspended work platforms, both before first use and at least annually thereafter while the equipment is being used;

- requirements for permanent equipment logs to be kept and maintained;
- specific requirements for fixed supports, roof plans, work plans and installation of suspended work platforms prior to their use; and
- requirements addressing structural aspects of suspended work platforms while in use, as well as the safety of workers using the equipment.

This proposal would also add definitions of several terms to section 1 of Regulation 851 – terms used in provisions setting out requirements for suspended access equipment. These definitions would be consistent with those currently found in O. Reg. 213/91 and would include “suspended work platform system”, “rated platform capacity”, “non-destructive test”, “generic installation drawing”, “fixed support”, “site-specific installation drawing”, and “critical weld”.

Any constructor duties set out in the O. Reg. 213/91 provisions would be assigned to the employer in Reg. 851. Similarly, any references to the term “competent worker” would be replaced by “a worker with adequate knowledge, training and experience”. References to “project” would be replaced by “workplace”. These proposed modifications reflect that “constructors” are usually only present at an industrial establishment if a construction project is taking place, and that “competent worker” is not a defined term in Regulation 851.

### **Questions**

- Do you agree with this proposal? Why or why not?

## **Guardrails, Toeboards and Coverings**

### ***Rationale***

In industrial establishments, guardrails and coverings are usually the first line of defence in protecting workers from the hazard of falling. As preventing falls from heights is a key priority for the ministry, the proposal would clarify the requirements for guardrails and coverings in Regulation 851 to ensure the safety of workers is protected, and improve consistency with existing Ontario Building Code requirements for guards.

### ***Current Regulatory Requirements in Regulation 851 (Industrial Establishments)***

- 13.** (1) Subject to subsection (2), there shall be a guardrail,
- (a) around the perimeter of an uncovered opening in a floor, roof or other surface to which a worker has access;
  - (b) at an open side of,
    - (i) a raised floor, mezzanine, balcony, gallery, landing, platform, walkway, stile, ramp or other surface, or
    - (ii) a vat, bin or tank, the top of which is less than 107 centimetres above the surrounding floor, ground, platform or other surface; and

- (c) around a machine, electrical installation, place or thing that is likely to endanger the safety of any worker.
  - (2) Subsection (1) does not apply to,
    - (a) a loading dock;
    - (b) a roof to which access is required only for maintenance purposes; and
    - (c) a pit used for,
      - (i) work on an assembly line, or
      - (ii) maintenance of vehicles or similar equipment.
- 14.** (1) A guardrail shall,
- (a) have a top rail located not less than 91 and not more than 107 centimetres above the surface to be guarded;
  - (b) have a mid rail;
  - (c) if tools or other objects may fall on a worker, have a toe-board that extends from the surface to be guarded to a height of at least 125 millimetres; and
  - (d) be free of splinters and protruding nails.
- (2) A guardrail shall be constructed to meet the structural requirements for guards as set out in the Building Code.
- 15.** A cover on an opening in a floor, roof or other surface shall be,
- (a) secured in place; and
  - (b) constructed to meet the structural requirements for loads due to the use of floors and roofs as set out in the Building Code.

### ***Proposed Amendments***

The ministry is proposing amendments to sections 13 through 15 of Regulation 851 to clarify the requirements for guardrails, toeboards and coverings and any exemptions to those requirements. The proposed amendments would clarify that the requirements for guardrails apply to fixed elements in industrial establishments, whether inside or outside of a building. This would include installed machinery or fixtures. Guardrail requirements for moveable equipment such as scaffolds, suspended work platforms and elevating work platforms would be set out in separate provisions.

This proposal would add a new definition of “guardrail system” to Regulation 851, which would mean an assembly of components joined together to provide a barrier to prevent a worker from falling from the edge of a surface. This is identical to the definition in O. Reg. 213/91 (Construction Projects).



This proposal would add two new situations in which a guardrail system would be required under subsection 13(1) – at the open side of a stairway or at the top of an unguarded shaft. Otherwise, guardrail systems would continue to be required in all of the situations currently mentioned in this subsection.

Regulation 851 does not currently set out a specific height that would trigger the requirement for guardrails. For more clarity, the ministry is proposing to require guardrail installation where the drop from one level to the next is 60 cm (approximately 2 feet) or greater. This is consistent with the provisions for guards in the Ontario Building Code.

The current exemptions to guardrail requirements in subsection 13(2) would remain. In addition, two new exemptions are proposed to reflect current workplace practices. In order to protect workers, this proposal would explicitly require that appropriate measures be put in place to protect the safety of workers whenever there is an exemption. The first new proposed exemption from guardrail requirements would be limited to the portion of the edge of a platform used to access an assembly line, if a permanent guardrail would prevent work from being performed. The second new proposed exemption from guardrail and covering requirements would be confined to the parts of performance stages and scenic units that are, or could be, visible to the audience (such as the front of a performance stage, for example).

This proposal would modify section 14 of Regulation 851 to align the minimum and maximum top rail heights with those in O. Reg. 213/91 (Construction Projects): the top rail would therefore have to be between 90 cm and 110 cm. Furthermore, it would clarify that the intermediate rail would need to be midway between the top rail and toeboard or working surface, and the intermediate rail could be replaced by a panel or pickets, if, like the rest of the guardrail system, the materials meet the structural requirements for guards as set out in the Ontario Building Code.

It is proposed that Regulation 851 should allow for the situations in which a top rail may be less than 90 cm, specifically in front of seating in indoor or outdoor places of assembly. This would align with requirements in the Ontario Building Code. In situations where a worker is elevated above the surface where a guardrail installed, Regulation 851 would require that the guardrail be raised or that other precautions, such as use of a personal fall protection system, be taken.

This proposal would add conditions to Regulation 851 that would address the temporary removal of a guardrail system or covering, including a requirement that the guardrail or covering be replaced immediately after the work is completed or if the area is left unattended. Appropriate measures, such as use of personal fall protection systems, would have to be put into place to protect workers in the area.

### **Questions**

- Do you agree with this proposal? Why or why not?

- Are there any additional situations in which it would not be possible to install guardrails that would meet the proposed requirements such that additional exemptions should be considered? If so, what are they?
- The proposed amendments would apply to fixed elements – are there types of movable or temporary equipment or structures that should also be equipped with guardrails?

### Fall Protection

#### *Rationale*

Preventing falls from heights, and the serious injuries to workers that can result, is a key priority for the ministry. Work-related deaths from falls at industrial workplaces are a significant concern.

The ministry is therefore proposing to include more specific fall protection requirements in Regulation 851, aligning with the detailed requirements in O. Reg. 213/91 (Construction Projects).

#### *Current Regulatory Requirements in Regulation 851 (Industrial Establishments)*

- 85.** Where a worker is exposed to the hazard of falling and the surface to which he or she might fall is more than three metres below the position where he or she is situated,
- (a) the worker shall wear a serviceable safety belt or harness and lifeline that is adequately secured to a fixed support and so arranged that the worker cannot fall freely for a vertical distance of more than 1.5 metres; and
  - (b) the fall arrest system described in clause (a) shall,
    - (i) have sufficient capacity to absorb twice the energy and twice the load that under the circumstances of its use may be transmitted to it, and
    - (ii) be equipped with a shock absorber or other devices to limit the maximum arresting force to 8.0 kilonewtons to the worker.

#### *Proposed Amendments*

The ministry is proposing to amend Regulation 851 by replacing existing fall protection requirements with new provisions that are substantially similar to those found in sections 26 through 26.9 of O. Reg. 213/91, with the exception of sections 26.2 (training) and 26.3 (guardrails). Where appropriate, additional modifications that reflect the application of these requirements in industrial establishments have also been proposed and are outlined below.

It is proposed that the fall protection requirements would apply where a worker at an industrial establishment may be exposed to any of the following hazards:

1. Falling more than 3 metres.
2. Falling into operating machinery.
3. Falling into water or another liquid.
4. Falling into or onto a hazardous substance or object.
5. Falling through an opening on a work surface.

The fall protection requirements would not apply where a guardrail or covering has been installed, as set out elsewhere in the regulation (see proposal regarding sections 13 to 15 in the section above). In these cases, workers would not be exposed to the hazard of falling.

In addition, it is proposed that certain workers in specific sectors be exempted from some or all of the fall protection requirements. For example, arborists and first responders use specialized harnesses and techniques, so some of the equipment-specific requirements may not be applicable. Performers, whether performing live or being filmed, are part of a unique industry that may use non-standard procedures and methods to protect workers while they are rehearsing or performing. Any new exemptions to fall protection requirements would be accompanied by a requirement that these workers be protected by alternative measures and procedures that are reasonable in the circumstances.

Section 79 of Regulation 851 already requires instruction and training of workers on the subject of the use and care of protective clothing, equipment and devices. Therefore, the ministry is not proposing the adoption of the training requirements found in section 26.2 of O. Reg. 213/91. Further, this proposal would not require workers who use fall protection equipment in industrial establishments to complete an approved working at heights training program as required under [O. Reg. 297/13](#) (Occupational Health and Safety Awareness and Training).

Where a fall protection system is required to be used, a worker would need to be adequately protected by the highest ranked method that is practicable from the following ranking of fall protection methods:

1. A travel restraint system
2. A fall restricting system
3. A fall arrest system
4. A safety net

As in O. Reg. 213/91, before any use of a fall arrest system or safety net, the employer would need to develop written procedures for rescuing any worker whose fall is arrested.

Similar to O. Reg. 213/91, the amendments to Regulation 851 would set out requirements for the design of fall protection systems and their components. Components of the various

kinds of fall protection systems would need to be designed in accordance with good engineering practice and meet good engineering standards. There would also be specific requirements regarding the design and use of fixed supports/anchors, as well as lifelines and lanyards.

As is currently the case in O. Reg. 213/91, the strength of permanent fixed supports/anchors would be tied to the requirements of the Ontario Building Code, which are based on CAN/CSA-Z91 – Health and Safety Code for Suspended Equipment Operations. This proposal would require that temporary fixed supports for fall arrest systems be equally strong (i.e. capable of resisting 22.2 kN of force).

Any type of fall protection system would need to be inspected before each use by a worker with adequate knowledge, training and experience to conduct the inspection.

This proposal would add a new definition of “fall restricting system” to Regulation 851, which would align with the definition in CSA Standard Z259.17 – 16 (Selection and use of active fall-protection equipment and systems), published by the Canadian Standards Association. A fall restricting system would only be permitted for use by workers climbing wood poles.

This proposal would also add definitions of several other terms to section 1 of Regulation 851 – terms used in provisions setting out requirements for fall protection. These definitions would be consistent with those currently found in O. Reg. 213/91 and would include “fall arrest system”; “full body harness”; “safety belt”; “safety net”; “travel restraint system”; and “fixed support”. Some of these terms are also used in provisions related to other topics discussed in this consultation paper, such as the proposed amendments for suspended work platforms and boatswain’s chairs.

### **Questions**

- Do you agree with this proposal? Why or why not?
- The proposal outlines five situations in which the use of a fall protection system would be required. Are there additional situations in which fall protection requirements should apply?
- Do the categories of fall protection systems listed in this proposal adequately describe the types of fall protection systems that may be used at industrial establishments?
- Subsection 26.1(3) of O. Reg. 213/91 sets out specific Canadian Standards Association (CSA) standards that components of fall protection systems must meet. Should these same standards be explicitly referenced in Regulation 851 or should the regulation reference “good engineering standards”, with the specific standards listed in guidance material?
- Do you agree that the strength requirements for temporary fixed supports/anchors should be equal to the strength requirements for permanent fixed supports/anchors? Please explain.

- Do you agree with the proposed exemptions for certain workers? What protections should be specified for these workers?
- Are there other workers or types of work that should be exempt from all or part of the requirements to use a fall protection system, and why?

### Traffic Management

#### *Rationale*

Workers can be at risk of serious injury or death due to hazards from vehicles and powered mobile equipment at industrial establishments, unless proper controls are in place. There have been a number of workers at industrial establishments who have been killed by moving vehicles or equipment, including signallers who were killed by vehicles they were directing. Vehicles or powered mobile equipment can also damage property, such as racks.

The ministry is therefore proposing to clarify and strengthen requirements in Regulation 851 to better protect the safety of those workers who work in proximity to vehicles and powered mobile equipment.

#### *Current Regulatory Requirements in Regulation 851 (Industrial Establishments)*

- 20.** Barriers, warning signs or other safeguards for the protection of all workers in an area shall be used where vehicle or pedestrian traffic may endanger the safety of any worker.

#### *Proposed Amendments*

The ministry is proposing to amend section 20 in Regulation 851 to require that, where practicable:

- Designated walkways be used to separate pedestrian traffic from areas where vehicles or powered mobile equipment operate; and
- Clearly visible warning signs be posted.

In addition, where vehicular traffic or powered mobile equipment traffic at an industrial establishment may endanger the safety of any worker, he or she would have to be protected from injury by any of the following that would be appropriate in the circumstances to protect workers:

- Barriers or other safeguards;
- Other measures and procedures.

Other measures and procedures could include traffic signals, back-up alarms on equipment, speed limits, restricting pedestrian access to certain areas, or taking measures to make equipment or workers more visible.

This proposal would mean that the amended section 20 would not only address hazards to pedestrians from vehicles or powered mobile equipment, but also hazards to operators, for example from collisions or backing over the lip of a pit.

### **Questions**

- Do you agree with this proposal? Why or why not?
- Other provinces specifically require workplaces to consider and/or implement other specific measures, such as traffic control or signalling systems, speed limits, or audible or visible warning devices. Are there other measures or procedures that you think should be explicitly mentioned in the regulation, in addition to those outlined above? If yes, please specify which ones and why.
- Are there any areas in industrial establishments or types of workplaces in which it would be difficult to implement the proposed requirements?

## **Traffic Management Program**

### ***Rationale***

A written traffic management program can help workplaces manage and more effectively control these particular hazards, thereby improving worker health and safety. While there is a requirement for a written traffic management program in section 105.1 of Regulation 854 (Mines and Mining Plants), there is no similar requirement in Regulation 851. This proposal would bring Regulation 851 into greater alignment with the mining sector.

### ***Current Regulatory Requirements in Regulation 851 (Industrial Establishments)***

None.

### ***Proposed Amendments***

The ministry is proposing that a new requirement be added to Regulation 851 for employers to develop and maintain a written traffic management program to address the hazards arising from the movement of powered mobile equipment at the workplace. The written program would support the proposed changes to section 20 outlined in this consultation paper. Such a program would only be required where powered mobile equipment is operated or used at an industrial establishment.

The written program would have to be reviewed as often as necessary to continue to protect workers, and in any case at least annually. The employer would be required to provide a copy of the written program to the joint health and safety committee or health and safety representative, if any.

This proposal would also add a new definition to Regulation 851 – “powered mobile equipment” would mean self-propelled equipment that is designed to operate on land in

conditions other than a public highway, and to manipulate or move material or provide a work platform for workers.

### **Questions**

- Do you agree with the proposal? Why or why not?
- Are there other types of vehicles or equipment for which a written traffic management program should be required? If yes, please specify what types and why.

### **Signallers – When Required**

#### ***Rationale***

Regulation 851 already requires signallers to work with the operators of vehicles, mobile equipment, cranes or similar material handling equipment in certain circumstances. However, there may be situations other than those involving the handling of material where the use of a signaller may also be appropriate. Therefore, the ministry is proposing to clarify when a signaller must be used at industrial establishments.

#### ***Current Regulatory Requirements in Regulation 851 (Industrial Establishments)***

- 56.** Where the operator of a vehicle, mobile equipment, crane or similar material handling equipment does not have a full view of the intended path of travel of the vehicle, mobile equipment, crane or similar material handling equipment or its load, the vehicle, mobile equipment, crane or similar material handling equipment shall only be operated as directed by a signaller [...]
- 60.** (2) Subject to section 42.2, where a vehicle, crane or similar equipment is operated near a live power line, and it is possible for any part of the vehicle, crane or similar equipment or its load to make contact with the live power line,
- (a) a worker shall be stationed within the view of the operator to warn the operator when any part of the equipment is approaching the minimum distance from the live power line;
- 113.** A log shall be loaded or unloaded only when,
- (a) the requirements of section 56 are met;

#### ***Proposed Amendments***

This proposal would amend section 56 of Regulation 851 to require signallers to assist the operators of powered mobile equipment, or a vehicle or trailer that is designed and primarily used to move or transport material, if a person or the operator could be

endangered by the powered mobile equipment, vehicle, trailer, or their load, and either one of the following conditions exists:

- the operator's view of the intended path of travel of the powered mobile equipment, or the vehicle or trailer is obstructed; or,
- the operator's view of the intended path of travel of the load is obstructed.

In addition, this proposal would set out a separate requirement for signallers where the operator of a crane or hoist does not have a clear and unobstructed view of the boom, jib, load line, load hook and load throughout the whole range of the hoisting operation.

This proposal would result in consequential amendments to section 60 to harmonize the language used to refer to signallers required when vehicles, powered mobile equipment or cranes approach high voltage lines. There would also be consequential amendments to section 113 regarding unloading logs.

### **Questions**

- Do you agree with the proposal? Why or why not?
- Are there other classes of vehicles or equipment that should always require signallers? If yes, which ones, and why?
- Are there locations or situations where requiring the use of signallers would not be appropriate?

### **Signallers – Procedures**

As previously mentioned, workers acting as signallers have been killed by vehicles they were directing. The ministry is proposing to include more specific procedures for signallers in Regulation 851, aligning these with the detailed requirements in O. Reg. 213/91 (Construction Projects). This more comprehensive set of rules would better protect workers who have to perform the work of a signaller in industrial establishments.

### ***Current Regulatory Requirements in Regulation 851 (Industrial Establishments)***

- 56.** ... a signaller who is a competent person and who is stationed
- (a) in full view of the operator;
  - (b) with a full view of the intended path of travel of the vehicle, mobile equipment, crane or similar material handling equipment and its load; and
  - (c) clear of the intended path of travel of the vehicle, mobile equipment, crane or similar material handling equipment and its load.



### ***Proposed Amendment***

The Ministry is proposing to add new requirements to Regulation 851 for employers to develop and maintain written procedures for operators and signallers, where the regulation or the written traffic management program requires the use of a signaller.

Employers would also have to ensure that a signaller receives appropriate instruction and training in the work to be performed and in the procedures to be followed before the signaller performs that kind of work. There would be an additional requirement to instruct and train the operator where the operator is a worker of the employer.

Under this proposal, the operator and the signaller would be required to;

- follow the procedures established by the employer for signallers and operators;
- discuss the procedures with each other before commencing the work; and
- communicate by means of a telecommunication system or, where visual signals are clearly visible to the operator, by means of prearranged visual signals.

Furthermore, in alignment with O. Reg. 213/91 a signaller would need to:

- perform no other work while performing work as a signaller;
- wear high visibility safety apparel;
- have a clear view of and be clear of the intended path of travel of the vehicle, trailer, powered mobile equipment, crane or its load;
- be in full view of the operator; and
- watch the part of the vehicle, trailer, powered mobile equipment, crane or its load whose path of travel the operator cannot see.

### ***Questions***

- Do you agree with this proposal? Why or why not?

## **High Visibility Safety Apparel**

### ***Rationale***

Fatalities, injuries and ‘close calls’ can occur when powered mobile equipment comes into contact with workers who act as signallers. In these situations, the lack of visibility of these workers may be a contributing factor. The use of high visibility safety apparel can help prevent these kinds of workplace incidents from happening by increasing the visibility of signallers.

There are requirements for signallers to wear high visibility safety apparel in O. Reg. 213/91 (Construction Projects), but there are no similar requirements in Regulation 851. Regulation 854 (Mines and Mining Plants) also requires workers underground and certain workers on

surface to wear high visibility safety apparel. This proposal would better align requirements for high visibility safety apparel across Ontario workplaces.

### ***Current Regulatory Requirements in Regulation 851 (Industrial Establishments)***

None.

### ***Proposed Amendments***

The ministry is proposing to add requirements to Regulation 851 for signallers to wear high visibility safety apparel. This apparel would need to:

- be appropriate in the circumstances to protect the worker from the hazards to which he or she is likely to be exposed;
- meet the design requirements for Class 1 or 2 set out in CSA Standard Z96-15, (High-visibility safety apparel); and
- contrast with the background environment in the workplace.

In addition, this proposal would require that a signaller wear bands of retro-reflective or combined-performance retro-reflective material encircling each arm and leg if signalling between sunset and sunrise. These bands would need to be at least 50 mm wide.

This proposal would require that all high visibility safety apparel and all retro-reflective or combined-performance retro-reflective materials be maintained in good condition so they adequately visually identify a worker.

### ***Questions***

- Do you agree with this proposal? Why or why not?
- Would the proposed requirements for high-visibility safety apparel be appropriate for all workers who perform work as signallers at industrial establishments? Are there certain workers for whom the above proposal would not be appropriate?

## **Storage Racks**

### ***Rationale***

Steel storage racks are common in industrial establishments, especially in distribution warehouses or in the storage areas of retail stores. These racks are often used to store large quantities of material and, in addition, are often loaded and unloaded with powered mobile equipment, which increases the potential for rack damage. If the racks are not properly installed, maintained and repaired, workers could be injured or killed by falling material or collapsing shelves.

The ministry is proposing to add new, specific requirements for storage racks into Regulation 851. The proposed amendments would align with new provisions in British Columbia that came into effect January 1, 2018.

### ***Current Regulatory Requirement in Regulation 851 (Industrial Establishments)***

None.

### ***Proposed Amendments***

This proposal deals with storage racks that are 2.4 m (8 ft) or taller in height (measured from the floor to the top of the highest shelf of the storage rack) or to those under 2.4 m in height if the materials and products are loaded/unloaded off the storage rack by other than manual means.

Shelving and display features used for retail purposes would be excluded from any new requirements. However, worker health and safety would continue to be protected by current provisions in the OHS Act and Regulation 851.

This proposal would add a new definition of “storage rack” to Regulation 851. A storage rack would be defined to mean a combination of steel frames, beams and associated accessories used, once assembled into a structure, to support materials and products. The definition would include pallet racks and cantilever racks.

This proposal would require an employer to ensure that a storage rack is:

- capable of safely supporting the items stored on it;
- designed and constructed in accordance with good engineering practice;
- inspected at regular intervals that will prevent the development of unsafe work conditions; and
- regularly maintained.

The employer would also need to ensure that

- the rated capacity of the storage rack is posted near the storage rack where it is visible to workers;
- the instructions of the manufacturer or a professional engineer for safely loading, unloading and maintaining the storage rack are readily available at the workplace; and
- records setting out the design of the storage rack are maintained and made available to an inspector on request.

Under this proposal, an employer would have to ensure the following activities are carried out in accordance with the specifications and/or instructions of the manufacturer or a professional engineer:

- installation and dismantlement;
- use;
- repair of any wear, corrosion, damage or sign of fatigue;
- replacement of any part, including a missing or incompatible part; and
- any structural modification.

This proposal would also require that the employer ensure that the following tasks are carried out by a person with adequate knowledge, training and experience:

- installing or uninstalling a storage rack;
- inspecting the storage rack for wear, corrosion, damage, missing or incompatible parts; and
- making a record of the results of each inspection and providing them to the employer.

If the proposal is adopted, storage racks would no longer be subject to the pre-start health and safety review (PSR) requirements set out in section 7 of Regulation 851. Worker health and safety would be ensured by the above proposal, including the general requirements for a storage rack to be designed and constructed in accordance with good engineering practice and capable of safely supporting the items stored on it.

### **Questions**

- Do you agree with this proposal? Why or why not?

## **Protection against Drowning**

### ***Rationale***

The ministry is proposing to align the drowning protection provisions in Regulation 851 more closely with those in O. Reg. 213/91 (Construction Projects) and O. Reg. 67/93 (Health Care and Residential Facilities), by allowing workers to wear personal flotation devices (PFD) as an alternative to lifejackets in certain circumstances. PFDs are often more comfortable to wear, and may allow a worker to perform work more effectively.

### ***Current Regulatory Requirement in Regulation 851 (Industrial Establishments)***

- 86.** Where a worker is exposed to the hazard of falling into liquid that is of sufficient depth for a life jacket to be effective as protection from the risk of drowning, there shall be an alarm system and rescue equipment, appropriate in the circumstances, to ensure the worker's rescue from the liquid and,
- (a) the worker shall wear a life jacket; or
  - (b) the employer shall develop written measures and procedures to prevent the worker from drowning and shall implement them.

### ***Proposed Amendments***

This proposal would require a worker to wear a life jacket or PFD that is appropriate in the circumstances where he or she is exposed to the risk of drowning and the liquid is of sufficient depth for the protective equipment to be effective protection.

Alternatively, as is currently allowed by Regulation 851, an employer could develop and implement written measures and procedures to protect workers from drowning.

As currently set out in Regulation 851, an employer would also need to ensure that there are appropriate alarm systems and rescue equipment. This proposal would clarify that:

- the alarm system must be capable of warning workers of the necessity of carrying out a rescue operation, and
- rescue equipment must be appropriate in the circumstances and readily accessible, in order to ensure the worker's rescue.

If a worker is protected from the hazard of drowning by a guardrail, personal fall protection equipment, or other means, the provisions for drowning protection would not apply.

### ***Questions***

- Do you agree with this proposal? Why or why not?

## **Eyewash Stations and Deluge Showers**

### **Rationale**

Biological and chemical substances found in industrial establishments that come into contact with the eyes or skin can cause worker injuries. Regulation 851 requires eyewash fountains and quick-acting deluge showers currently. The ministry is proposing to align these requirements more closely with those in Regulation 854 (Mines and Mining Plants), to also allow for the use of antidotes, flushing fluids or washes, where appropriate.

As well as clarifying requirements regarding eye wash stations and showers, this change would better protect workers who are at risk of eye or skin injury due to these chemical hazards.

### ***Current Regulatory Requirement in Regulation 851 (Industrial Establishments)***

- 124.** Where a worker is exposed to a potential hazard of injury to the eye due to contact with a biological or chemical substance, an eyewash fountain shall be provided.
- 125.** Where a worker is exposed to a potential hazard of injury to the skin due to contact with a substance, a quick-acting deluge shower shall be provided.

### ***Proposed Amendments***

Proposed amendments would require that, where a worker is exposed to a potential hazard of injury to the eye or skin due to contact with a biological or chemical substance, an employer must keep or install any of the following that would be appropriate to protect the worker from the hazard to which he or she is exposed:

- (a) antidotes, flushing fluids or washes;
- (b) eye wash facilities; and
- (c) quick-acting emergency showers.

An eyewash facility or emergency shower would need to be located or installed in a conspicuous place as near as practicable, and in any case not more than 17 metres (55 feet), from where the substance is being used or kept in the workplace.

An antidote, flushing fluid or wash would need to be readily accessible to workers and located in a conspicuous place as near as practicable to where the substance is kept or used. In addition, instructions for their use would need to be kept as near to this location as practicable.

The proposal would also require that a worker's access route to the methods of protection mentioned above be unimpeded, and would require that workers be instructed or trained in the use of the protection methods in their workplace.

The proposed amendments would provide employers with more flexibility in determining appropriate protection methods by allowing for the use of antidotes, flushing fluids and washes, in addition to eye wash facilities and emergency showers.

### ***Questions***

- Do you agree with this proposal? Why or why not?

### **Equivalency**

Section 2 of Regulation 851 provides for equivalency but is not fully harmonized with similar provisions found in section 3 in both O. Reg. 213/91 (Construction Projects) and Reg. 854 (Mines and Mining Plants). The ministry is proposing amendments to harmonize these provisions. These equivalency provisions allow workplace parties to vary from certain regulatory requirements if specified conditions are met.

### ***Current Regulatory Requirements in Regulation 851 (Industrial Establishments)***

2. In applying this Regulation, the composition, design, size and arrangement of any material, object, device or thing may vary from the composition, design, size or arrangement prescribed in this Regulation where the factors of strength, health and safety are equal to or greater than the factors of strength, health and safety in the composition, design, size or arrangement prescribed.

### ***Proposed Amendments***

Section 2 of Regulation 851 currently allows for a variation of the composition, design, size or arrangement of a material, object device or thing required by the regulation. A variance is only allowed if the alternate composition, design, size or arrangement would protect the health and safety of workers to at least the same level.

It is proposed that this section be amended to also allow that a procedure required by the regulation could be varied if the alternate procedure would protect the health and safety of workers to at least the same level. Only a procedure already in the regulation could be varied by another procedure – a procedure would not be able to replace the requirement for something physical, such as a safeguard.

Furthermore, it is proposed that this section be amended to specify that employers or owners are workplace parties who could decide upon a variance. These parties would have to give written notice of the variance to the joint health and safety committee or the health and safety representative, if any, and the trade union, if any.

### ***Questions***

- Do you agree with this proposal? Why or why not?

### **Other Items**

#### ***Rationale***

The ministry is proposing to replace references to “mobile equipment”, “powered equipment” and “material handling equipment” in sections 54, 58 and 59 of Regulation 851 with “powered mobile equipment”, which, if this proposal is approved, would be defined as self-propelled equipment that is designed to operate on land other than a public highway, and to manipulate, move or carry material or provide a work platform for workers.

### ***Questions***

- Do you agree with this proposal? Why or why not?

## Comments Due Date

April 6, 2018

## Email

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## Notice to Consultation Participants

Submissions and comments provided to the Ministry of Labour are part of a public consultation process to solicit views on the proposed new regulatory requirements related to Regulation 851 (Industrial Establishments). This process may involve the ministry disclosing submissions, comments, or summaries of them, to other parties during and after the public consultation period. However, personal information in the ministry's possession, such as names and contact details, will not be disclosed except as required by law.

If you, as an individual, want to make a submission or provide comments and you do not want personal information to be made public, you should not include it or other information by which you could be identified in the main body of the submission. As well, you should not include the names of other individuals or any other information from which other individuals could be identified. By submitting your comments you are consenting to the use of your information, which may include personal information, by the Ministry of Labour.

Personal information collected during this consultation is under the authority of the *Occupational Health and Safety Act* and is in compliance with subsection 38 (2) of the [\*Freedom of Information and Protection of Privacy Act\*](#).

If you have any questions regarding freedom of information or privacy matters, you may contact the ministry's Freedom of Information and Privacy Office at 416-326-7786.