



HEALTH, SAFETY & ENVIRONMENTAL PROGRAM

## Section: Pre-Start Health and Safety Reviews

PREPARED BY: HEALTH AND SAFETY TEAM

DATE OF ORIGIN: 02/02/2023

REVISION # 1

# OF PAGES: 4

# PRE-START HEALTH AND SAFETY REVIEWS

## PURPOSE

Industrial establishments meeting the definition of “factory” must complete Pre-Start Health and Safety Reviews (PSR’s) in their workplace as required.

## DEFINITIONS

### Factory is defined as:

a building or place other than a mine, mining plant or place where homework is carried on, where,

- I. any manufacturing process or assembling in connection with the manufacturing of any goods or products is carried on,
- II. **in preparing, inspecting, manufacturing, finishing, repairing, warehousing, cleaning or adapting for hire or sale any substance, article or thing, energy is,**
  - a. **used to work any machinery or device, or**
  - b. **modified in any manner,**
- III. any work is performed by way of trade or for the purposes of gain in or incidental to the making of any goods, substance, article or thing or part thereof,
- IV. any work is performed by way of trade or for the purposes of gain in or incidental to the altering, demolishing, repairing, maintaining, ornamenting, finishing, storing, cleaning, washing or adapting for sale of any goods, substance, article or thing, or
- V. **aircraft, locomotives or vehicles used for private or public transport are maintained**

It would appear from the definition, that the AE shop is identified as a factory.

## SCOPE

### What is a PSR?

A pre-start health and safety review (PSR) is an in-depth examination of an apparatus, structure, protective element or process. Section 7 of the Industrial Regulation sets out requirements to ensure that a timely professional review identifies specific hazards. The PSR includes a written report that outlines all areas of non-compliance and the measures necessary to achieve compliance (steps, actions or engineering controls).

### Circumstances Described in the Section 7 Table:

- **Flammable liquids** → **AE shop**
- Guarding
- **Rack and stacking structures** → **AE shop**
- Spray booths
- Dust collector for easily ignitable dust
- Molten metal in a foundry
- **Lifting devices** → **AE shop**
- **Chemical processes** → **AE shop**



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Item	Applicable provisions of this Regulation	Circumstances
1.	Subsections 22 (1), (2) and (4)	Flammable liquids are located or dispensed in a building, room or area.
2.	Sections 24, 25, 26, 28, 31 and 32	Any of the following are used as protective elements in connection with an apparatus: 1. Safeguarding devices that signal the apparatus to stop, including but not limited to safety light curtains and screens, area scanning safeguarding systems, radio frequency systems and capacitance safeguarding systems, safety mat systems, two-hand control systems, two-hand tripping systems and single or multiple beam systems. 2. Barrier guards that use interlocking mechanical or electrical safeguarding devices.
3.	Clause 45 (b)	Material, articles or things are placed or stored on a structure that is a rack or stacking structure.
4.	Section 63	A process involves a risk of ignition or explosion that creates a condition of imminent hazard to a person's health or safety.
5.	Section 65	The use of a dust collector involves a risk of ignition or explosion that creates a condition of imminent hazard to a person's health or safety.
6.	Sections 87.3, 87.4, 87.5 and 88, subsections 90 (1), (2) and (3), and sections 91, 92, 94, 95, 96, 99, 101 and 102	A factory produces aluminum or steel or is a foundry that melts material or handles molten material.
7.	Sections 51 and 53	The construction, addition, installation or modification relates to a lifting device, travelling crane or automobile hoist.
8.	Sections 127 and 128	A process uses or produces a substance that may result in the exposure of a worker in excess of any exposure limit set out in Regulation 833 of the Revised Regulations of Ontario, 1990 (Control of Exposure to Biological or Chemical Agents), Ontario Regulation 278/05 (Designated Substance — Asbestos on Construction Projects and in Buildings and Repair Operations) or Ontario Regulation 490/09 (Designated Substances) all made under the Act.

**What must the pre-start health and safety review report include?**

A written report is required that must contain the following:

1. Details of measures that must be taken to bring the apparatus, structure, protective element or process into compliance with the specified provisions of the Industrial Regulations listed in the section 7 table.
2. Details of measures to protect the health and safety of workers that are to be taken before testing is carried out if testing is required before the apparatus or structure can be operated or used or before the process can be used.
3. Details of the structural adequacy of the apparatus or structure if item 3 or item 7 of the section 7 table applies.
4. The signature of the person performing the pre-start health and safety review and the date it was performed.
5. If a professional engineer performed the PSR, his or her seal.



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### PRE-START HEALTH AND SAFETY REVIEWS

- If the person performing the PSR is not a professional engineer, details of his or her special, expert, or professional knowledge or qualifications.

#### Who may perform a pre-start health and safety review?

A PSR required under items 1, 2, 3, 4, 5, 6, or 7 must be conducted by a professional engineer.

A PSR required under item 8 must be conducted by a professional engineer or by a person who possesses special, expert or professional knowledge or qualifications appropriate to assess any potential or actual hazards. This person may have a specific qualification, such as being a Certified Industrial Hygienist (CIH) or Registered Occupational Hygienist (ROH), when the following circumstances exist:

- A process uses or produces a substance that may result in the exposure of a worker in excess of any exposure limit set out in Regulation 833 of the Revised Regulations of Ontario, 1990 (Control of Exposure to Biological or Chemical Agents)

#### Flammable liquids

A PSR is required when flammable liquids are located or dispensed in a building, room or area.

There are no standards that may be used for an exemption. However, the following standards may be used by an engineer doing a PSR to determine compliance or measures to be taken to achieve compliance: NFC Part 4; NFPA-30; NFPA-68 and 69; NFPA-505; Factory Mutual Systems Industrial Loss Prevention.

#### Rack and stacking structures

When materials, articles or things are to be placed or stored on a structure that is a rack or stacking structure (item 3 in the section 7 table), a PSR is required unless the rack or stacking structure is designed and tested for use in accordance with current applicable standards.

For the purpose of section 7, "rack and stacking structures" include:

- industrial pallet racks
- moveable shelf racks
- stacker racks
- drive-in and drive-through racks, and
- cantilever racks.

They are made of cold-formed, hot-rolled steel, wood, aluminum or concrete structural members.

#### Exemption

An exemption from doing a PSR may be claimed if the rack or stacking structure has been manufactured to meet the following Racking Manufacturing Institute Standard:

Specification for the Design Testing and Utilization of Industrial Steel Storage Racks, Part 1, 2, 3.



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### **PRE-START HEALTH AND SAFETY REVIEWS**

This standard deals with detailed safety requirements for a particular piece of equipment such as racks and stacking structures. If no PSR is required, the owner or employer shall keep documents establishing the exemption readily accessible in the workplace for as long as the rack or stacking structure remains in the workplace.

#### **Codes and Standards**

If the rack or stacking structure was not manufactured to this standard, the standard may be used by the engineer doing the PSR to demonstrate that the rack is in compliance with the applicable clause of the Industrial Regulation (45(b)).

The codes and standards listed below cannot be used for exemption purposes but may be used by an engineer doing a PSR to determine compliance or measures to be taken to achieve compliance:

- Steel storage racking AS 4084-1993
- SEMA Code of Practice for the Design of Static Racking
- Pallet racks JIS Z 0620 - 1998

#### **Lifting devices**

A PSR is required when the construction, addition, installation or modification relates to a lifting device, travelling crane or automobile hoist. This does not include a forklift truck.

#### **Exemptions**

A PSR would not be required in the case of a lifting device or travelling crane, if it is in or on a supporting structure originally designed for it and its capacity does not exceed the capacity provided for in that original design

If no PSR is required due to the above exemption, the owner or employer must keep documentation supporting the exemption readily accessible in the workplace.

#### **Chemical processes**

A PSR is required when a process uses or produces a substance that may result in the exposure of a worker in excess of any occupational exposure limit set out in R.R.O. 1990, Regulation 833, O. Reg.490/09, and O. Reg. 278/05 under the OHSA.

There are no standards that can be used for an exemption from a PSR. However, Regulation 833 Control of Exposure to Biological or Chemical Agents or O. Reg. 490/09 Designated Substance Regulation may be used to support compliance.