

2017/03/30-02

THE WORKERS' COMPENSATION BOARD OF BRITISH COLUMBIA

RESOLUTION OF THE BOARD OF DIRECTORS

RE: Amendments to requirements of the *Occupational Health and Safety Regulation*, B.C. Reg. 296/97

WHEREAS:

Pursuant to section 225(1) of the *Workers Compensation Act*, R.S.B.C. 1996, c. 492 ("Act"), the Workers' Compensation Board may make regulations it considers necessary or advisable in relation to occupational health and safety and occupational environment;

AND WHEREAS:

The Workers' Compensation Board, pursuant to its mandate under the *Act*, has proposed amendments to add a new section to Part 4, section 4.43.1, *Storage Racks*, of the *Occupational Health and Safety Regulation*, and has given notice of the proposed amendments, conducted consultations and held public hearings on the proposed amendments in accordance with section 226(1) of the *Act*;

AND WHEREAS:

Pursuant to section 228 of the *Act*, a review of the above Part was undertaken by the Workers' Compensation Board as part of the process of ongoing review of and consultation on its regulations to ensure they are consistent with current workplace practices, technological advances and other changes affecting occupational health and safety and occupational environment;

AND WHEREAS:

The Workers' Compensation Board, after due consideration of all presentations, considers it necessary and advisable in relation to occupational health and safety and occupational environment to amend Part 4 of the *Occupational Health and Safety Regulation*;

AND WHEREAS:

Pursuant to section 227 of the *Act*, the Workers' Compensation Board must specify the date on which regulations come into force, which date must be at least 90 days after their deposit under the *Regulations Act*,

AND WHEREAS:

Pursuant to the Provincial Government's *Regulatory Reform Policy*, the Workers' Compensation Board has evaluated the proposed regulatory amendments according to the established regulatory criteria.

THE WORKERS' COMPENSATION BOARD ORDERS THAT:

Effective January 1, 2018, the *Occupational Health and Safety Regulation*, B.C. Reg. 296/97, is amended as set out in the attached Appendix A.

Dated at Richmond, British Columbia, on March 30, 2017.

By the Workers' Compensation Board

**JOHN BECKETT, CRSP, CPHR, MBA, ICD.D
CHAIR, BOARD OF DIRECTORS**

APPENDIX A

1 The Occupational Health and Safety Regulation, B.C. Reg. 296/97, is amended by adding the following section:

Storage racks

- 4.43.1**
- (1) In this section, “**storage rack**” means a combination of steel frames, beams and associated accessories used, once assembled into a structure, to support materials and products, including, for example, a pallet rack or cantilever rack, but excludes shelving and display fixtures used for retail purposes.
 - (2) This section applies in respect of a storage rack that is
 - (a) 2.4 m (8 ft) or taller in height, as measured from the floor to the top of the highest shelf level of the storage rack, or
 - (b) under 2.4 m (8 ft) in height, if the materials and products are loaded on or unloaded off the storage rack by other than manual means.
 - (3) The employer must ensure that a storage rack in the workplace is
 - (a) capable of safely supporting the items stored on it,
 - (b) designed and constructed in accordance with good engineering practice, and
 - (c) used in accordance with the specifications and instructions of the manufacturer or a professional engineer.
 - (4) The employer must ensure that a qualified person installs and uninstalls the storage rack, in whole or in part, in accordance with the instructions of the manufacturer or a professional engineer.
 - (5) The employer must ensure that the instructions of the manufacturer or a professional engineer for safely loading, unloading and maintaining the storage rack are readily available in the workplace to workers.
 - (6) The employer must ensure that the rated capacity of the storage rack is clearly posted near the storage rack and readily visible to workers.
 - (7) The employer must ensure that any structural modification, including reconfiguration, of the storage rack is carried out in accordance with the specifications of the manufacturer or a professional engineer.
 - (8) The employer must ensure that a qualified person
 - (a) inspects the storage rack
 - (i) for wear, corrosion, damage, missing or incompatible parts, and signs of fatigue, and
 - (ii) at regular intervals that will prevent the development of unsafe working conditions,
 - (b) makes a record of the results of each inspection, and
 - (c) provides the record to the employer.
 - (9) The employer must ensure that, with respect to the storage rack,
 - (a) regular maintenance is done, and
 - (b) wear, corrosion, damage, missing or incompatible parts, and signs of fatigue are repaired or replaced in accordance with the specifications and instructions of the manufacturer or a professional engineer.

2017/03/30-03

THE WORKERS' COMPENSATION BOARD OF BRITISH COLUMBIA

RESOLUTION OF THE BOARD OF DIRECTORS

RE: Amendments to requirements of the *Occupational Health and Safety Regulation*, B.C. Reg. 296/97

WHEREAS:

Pursuant to section 225(1) of the *Workers Compensation Act*, R.S.B.C. 1996, c. 492 ("Act"), the Workers' Compensation Board may make regulations it considers necessary or advisable in relation to occupational health and safety and occupational environment;

AND WHEREAS:

The Workers' Compensation Board, pursuant to its mandate under the *Act*, has proposed amendments to Part 23, section 23.69, *Flow Piping*, of the *Occupational Health and Safety Regulation*, and has given notice of the proposed amendments, conducted consultations and held public hearings on the proposed amendments in accordance with section 226(1) of the *Act*;

AND WHEREAS:

Pursuant to section 228 of the *Act*, a review of the above Part was undertaken by the Workers' Compensation Board as part of the process of ongoing review of and consultation on its regulations to ensure they are consistent with current workplace practices, technological advances and other changes affecting occupational health and safety and occupational environment;

AND WHEREAS:

The Workers' Compensation Board, after due consideration of all presentations, considers it necessary and advisable in relation to occupational health and safety and occupational environment to amend Part 23 of the *Occupational Health and Safety Regulation*;

AND WHEREAS:

Pursuant to section 227 of the *Act*, the Workers' Compensation Board must specify the date on which regulations come into force, which date must be at least 90 days after their deposit under the *Regulations Act*,

AND WHEREAS:

Pursuant to the Provincial Government's *Regulatory Reform Policy*, the Workers' Compensation Board has evaluated the proposed regulatory amendments according to the established regulatory criteria.

THE WORKERS' COMPENSATION BOARD ORDERS THAT:

Effective August 1, 2017, the *Occupational Health and Safety Regulation*, B.C. Reg. 296/97, is amended as set out in the attached Appendix A.

Dated at Richmond, British Columbia, on March 30, 2017.

By the Workers' Compensation Board

**JOHN BECKETT, CRSP, CPHR, MBA, ICD.D
CHAIR, BOARD OF DIRECTORS**

APPENDIX A

- 1 ***Section 23.1 of the Occupational Health and Safety Regulation, B.C. Reg. 296/97, is amended by adding the following definition:***

“flow piping system” means a temporary or portable system of piping and other component parts, including valves and fittings, that is

- (a) located above ground, and
- (b) for use to convey to or from a wellhead a liquid under pressure, or a gas under pressure, during drill stem testing, swabbing, cementing, well servicing or well stimulation; .

- 2 ***Section 23.6 (3) is amended by striking out “well head” and substituting “wellhead”.***

- 3 ***The following section is added before the heading “Geophysical Operations”:***

Liquefied gas used for purging or gauging operations or well stimulation

- 23.26.1 The employer must ensure that workers are protected from hazards that may be caused by the release of liquefied gas being used for purging or gauging operations or well stimulation.

- 4 ***Section 23.69 is repealed and the following substituted:***

Flow piping systems – integrity assurance program

- 23.69 (1) The employer must develop and implement a program for the purpose of ensuring the integrity of the flow piping systems at the worksite.

- (2) In fulfilling the requirements of subsection (1), the employer must consider the conditions under which each flow piping system may operate, including corrosion factors and fluctuating temperatures and pressures, and the program must include provision for the following elements:

- (a) routine inspections, non-destructive testing and pressure testing of piping and other component parts of each flow piping system, including setting out in writing, for each type of part to be inspected and tested,
 - (i) the inspection and testing procedures,
 - (ii) the frequency of inspection and testing and how the frequency is to be determined,
 - (iii) the criteria for rejection of a type of part and its removal from service, and
 - (iv) the method of determining how frequently a type of part is to be replaced, including the basis for replacement;
- (b) preparing, updating and making readily available at the worksite an up-to-date document, relating to the inspections and testing referred to in paragraph (a), that identifies each part that has been inspected and tested, and sets out, for that part,
 - (i) the inspection and testing procedures followed,
 - (ii) the results of the inspection and testing, and
 - (iii) if a part has been rejected, the rejection criteria applied;

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- (c) periodic reviews and updates of the program;
 - (d) a system of preparing and retaining records in relation to each element of the program.
- (3) The employer must assign to a qualified person responsibility for administration of the program referred to in subsection (1).

Flow piping systems – selection, installation and operation

23.69.1 The employer must ensure that

- (a) each flow piping system at the worksite is
 - (i) selected based on the manufacturer's specifications, having regard to the system's anticipated operation, and
 - (ii) installed and operated in accordance with the manufacturer's instructions and specifications, and
- (b) copies of all of the manufacturer's instructions and specifications in relation to the flow piping systems are readily available at the worksite.

Flow piping systems – restraint systems

23.69.2 (1) The employer must ensure that each flow piping system at the worksite is restrained by an engineered restraint system that is designed and manufactured

- (a) to be used for the purpose of safely restraining the flow piping system, and
 - (b) to withstand the forces that may be encountered if the flow piping system fails.
- (2) If a restraint system has been manufactured by a commercial manufacturer, the employer must ensure that the restraint system is installed and anchored in accordance with the instructions and specifications of that manufacturer.
- (3) If a restraint system has been manufactured by the employer or another person who is not a commercial manufacturer, the employer must ensure that
- (a) engineering documentation, including technical specifications and instructions for use, has been prepared and signed by the person responsible for demonstrating that the restraint system has been designed and manufactured as described in subsection (1),
 - (b) the restraint system is installed and anchored in accordance with that engineering documentation, and
 - (c) a copy of that engineering documentation is readily available at the worksite.
- (4) In addition to meeting the requirements of subsection (2) or (3) (b), the employer must ensure that each restraint system is anchored at both the wellhead end and the supply vehicle end or pumping unit end, but a restraint system need not be anchored to the wellhead or to the supply vehicle or pumping unit.
- (5) The employer must ensure that temporary ground anchors that are part of a restraint system are pull tested before initial use and, if they continue to be used, that they are pull tested annually and whenever they may have been affected by seasonal changes.

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Flow piping systems – other requirements

- 23.69.3** (1) If the pressure of a flow piping system at the worksite may exceed 2 000 kPa (290 psi) during well stimulation and similar operations, the employer must ensure that
- (a) those operations of the flow piping system are conducted by remote control,
 - (b) unauthorized workers do not enter the area between the point of discharge and the wellhead, and
 - (c) before the operations are started, warning signs are posted in the area of the operations stating “DANGER, NO UNAUTHORIZED WORKERS ALLOWED IN THIS AREA” or other similar language.
- (2) If the pressure of a flow piping system at the worksite may exceed 3 000 kPa (435 psi), the employer must ensure that
- (a) the flow piping system connections are welded or flanged or are hammer unions, and
 - (b) if the only connection on the wellhead is a threaded connection that is integral to the wellhead, the component parts of that threaded connection are compatible with each other.
- (3) The employer must ensure that each flow piping system at the worksite is completely depressurized before a leak in a connection or fitting in the flow piping system is corrected.
- (4) The employer must ensure that a person does not hammer on a pressurized flow piping system at the worksite.
- (5) If workers are using liquefied gas for well stimulation, the employer must ensure that the unit that supplies the liquefied gas and the unit that pumps the liquefied gas are positioned so that the valve controls of each of those units are on the sides of each of those units that are opposite from the piping that supplies the liquefied gas to the well.

5 *Section 23.70 (1) and (2) is amended by striking out “well head” and substituting “wellhead” wherever it appears.*

6 *Section 23.72 is repealed and the following substituted:*

Pressure testing requirements

- 23.72** (1) The employer must ensure that, before a well service operation at the worksite commences, piping, pumps, valves, fittings and wellheads that are to be used in the operation have been
- (a) hydraulically pressure tested, or
 - (b) if hydraulic pressure testing is not practicable, pressure tested with an inert gas,
- to a pressure that is at least 10% above the maximum operating pressure of the well service operation anticipated by the well owner but not above the manufacturer’s maximum pressure rating of the piping, pumps, valves, fittings or wellheads.

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- (2) The employer must ensure that, before a well testing or flowback operation at the worksite commences, the flow piping system from the wellhead to the first pressure control choke has been
 - (a) hydraulically pressure tested, or
 - (b) if hydraulic pressure testing is not practicable, pressure tested with an inert gas,
to a pressure that is at least 10% above the maximum operating pressure of the well testing or flowback operation anticipated by the well owner but not above the manufacturer's maximum pressure rating of the piping, pumps, valves, fittings or wellheads.
- (3) The employer must ensure that documentation of the results of the testing required under subsections (1) and (2) is readily available at the worksite.
- (4) The employer must ensure that, if
 - (a) nitrogen is being used in well stimulation, and
 - (b) the flow piping system that supplies the nitrogen to the well is pressure tested with nitrogen,
the nitrogen treating line is connected to the main line as close as practicable to the well.
- (5) The employer must ensure that, before each flow piping system at the worksite is pressurized with low flash point hydrocarbons, the air has been purged from the flow piping system.