

Directive
Overpressure Protection Requirements for
Pressure Vessels and Pressure Piping
Under
Pressure Equipment Safety Regulation (AR 49/2006)

Section 38 of *Pressure Equipment Safety Regulation, AR 49/2006* (hereafter referred to as PESR) with amendments up to and including Alberta Regulation 227/2012, states:

- (1) *An owner of pressure equipment must ensure it has overpressure protection that is*
 - (a) *a pressure relief valve that meets the requirements of the ASME Code, or*
 - (b) *other means of overpressure protection acceptable to the Administrator.*
- (2) *A pressure relief device must be set to open before the pressure in the pressure equipment exceeds the maximum allowable working pressure of the pressure equipment.*
- (3) *An owner of pressure equipment must ensure that the overpressure protection system is designed and maintained so that the maximum pressure in the pressure equipment does not exceed the prescribed limit of overpressure allowed in the applicable code declared in force by this Regulation.*

To provide assistance to industry and to simplify the process of achieving compliance with the PESR provisions, this Directive establishes ABSA Document AB-525, *Overpressure Protection Requirements for Pressure Vessels and Pressure Piping* (hereafter referred to as AB-525) as mandatory requirements in Alberta. AB-525 defines the requirements that must be met for systems that consist of pressure piping and/or pressure vessels where overpressure protection is provided by:

- Pressure relief valves (PRV) in compliance with Sections 38(1)(a), 38(2) and 38(3) of the PESR; and/or
- Other means of overpressure protection in lieu of PRV as provided for under Sections 38(1)(b) and 38(3) of the PESR.

In addition to providing guidance as to how overpressure protection requirements can be met, AB-525 also addresses how certain types of overpressure protection by system design (OPPSD) for pressure vessels and pressure piping may be registered without applying for individual case-by-case consideration.

AB-525 applies to pressure piping and pressure vessels that are subject to the *Safety Codes Act*. This document also applies to pipelines subject to ERCB Directive 077 and ABSA Directive IB10-006. Organizations and persons affected by the document should review their current pressure piping and pressure vessel design submissions and on-going construction related to those design submissions.

For implementation purposes, provisions for existing construction under Section 6 of AB-525 also apply to plants for which:

- (i) the design registration has already been issued; and
- (ii) a design registration application is made to ABSA for review prior to June 30, 2013.

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