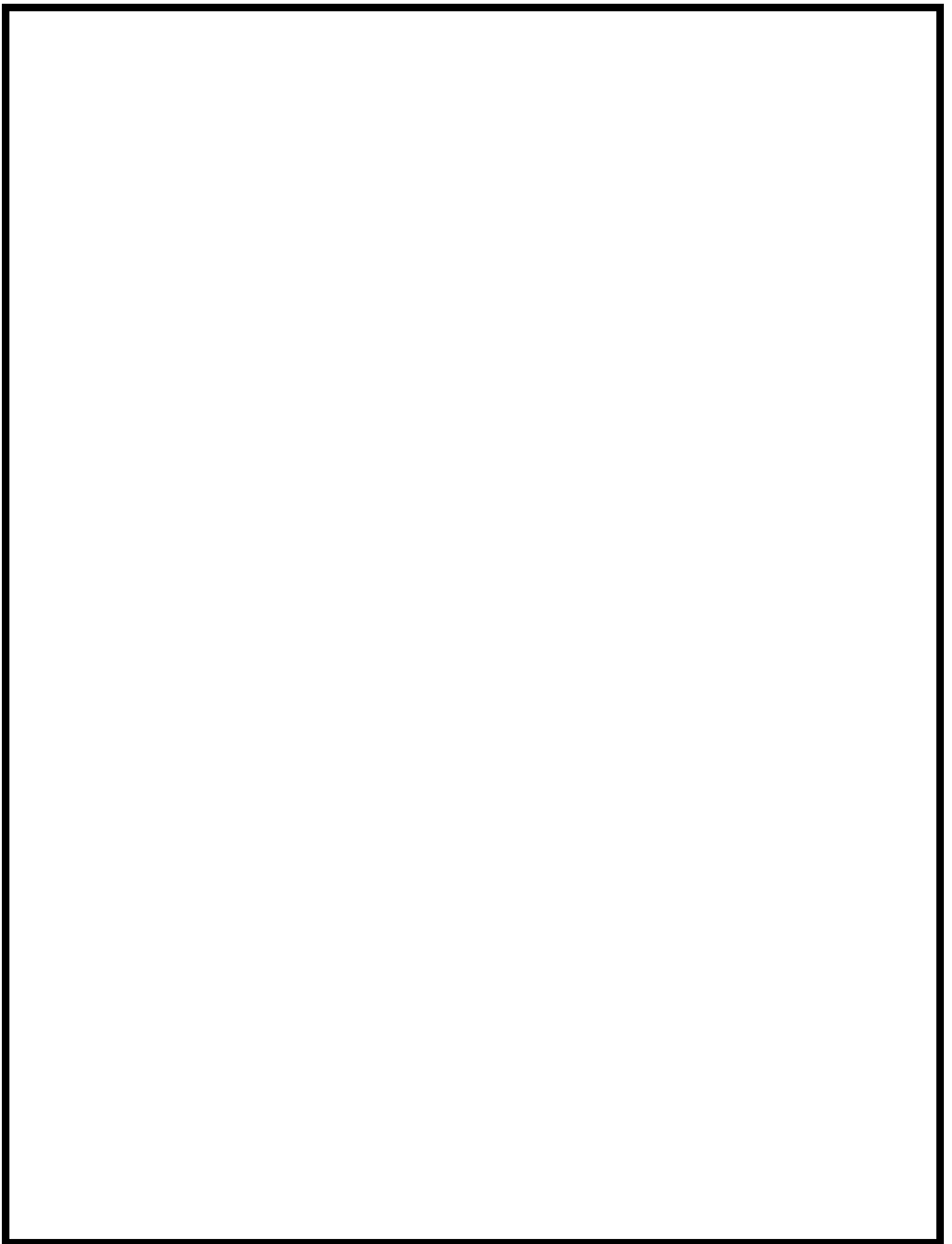


**THE SASKATCHEWAN
CODES OF PRACTICE
GAS INSTALLATION SUPPLEMENT
CSA-B149.2 - 15
PROPANE STORAGE
AND HANDLING CODE**



Revision Date: July 2018



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The following clauses have been amended, noted, explained or added and is a supplement to the B149.2 Propane Storage and Handling Code.

Note: The acronym S.C.O.P. refers to the Saskatchewan Codes of Practice.

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5 General Requirements for Propane and Propane Equipment

5.3 Protection of containers and equipment

5.3.2.1 Storage cages/cabinets are removed from requiring further vehicular traffic protection when placed on a raised 6 inch (150 mm) minimum concrete pad at least 8' (2.44 m) from a driving lane.

5.3.2.2 The installation of retail storage cages shall not commence until an application with a site plan is submitted to The Chief Gas Inspector for approval. All installations are to be reported on a gas permit.

6 Cylinder Systems

Δ(May 2017) 6.5.2.6.1 Propane cylinder exchange for resale

(g) Cabinets shall have its base on a firm level footing; and shall be securely anchored in an upright position.

7 Tank systems filling plants and refill centers

7.1 General

7.1.7 A propane tank shall not be installed within a diked area containing a tank of flammable or combustible liquid and shall be located not less than 20 ft (6 m) from the centreline of the dike.

7.1.7.1 Clause 7.1.1 is not applicable to the diked area created by a dike constructed around the perimeter of an oilfield lease site.

7.1.8.1 On an oilfield lease site the propane tank may be positioned in any orientation along the flow line from the wellhead to the oil tank as long as the position does not create a vehicular hazard.

7.1.8.2 On an oilfield lease site the propane tank may be adjacent to the secondary liquid tank containment system provided clearances specified in CAN/CSA B149.2 clause 7.1.8, S.C.O.P. clause 7.10.2 and CAN/CSA B149.2 - Table 7.4 are met.

7.8 Installation of underground tanks

7.8.1 A tank shall only be installed underground with the approval of the authority having jurisdiction. In Saskatchewan, approval from SaskPower Gas Inspections will be conditional upon the stability of the slope and soil conditions for the location – over the potential range of temperature and moisture conditions - as evidenced by a professional geotechnical review.

7.10 Location of consumer tanks

7.10.3 A tank used in a consumer application shall be located with respect to a property line, building opening, or an adjacent tank in accordance with Table 7.4, except that

- (a) for capacities over 125 USWG (475 L) and up to and including 500 USWG (1900 L), the clearance from building walls may be reduced to 3 ft (1 m) for a single tank, provided that
 - (i) the building wall is of concrete or masonry construction;
 - (ii) there is a minimum of 10 ft (3 m) to the nearest building opening; and
 - (iii) the tank is used only for vapour service; and
- (b) for capacities over 125 USWG (475 L) and up to and including 5000 USWG (19 000 L), the clearances from building walls of other than concrete or masonry construction may be reduced to the clearances specified for concrete or masonry wall construction if protection acceptable to the authority having jurisdiction is provided.
- (c) on a oil field lease with a tank capacity over 1000 USWG (3800 L) the clearance can be reduced to 10 ft (3 m) from the wall of an unoccupied building.

7.10.4 Where end failure of horizontal storage tanks may endanger institutional or assembly building, the tanks shall be placed with the longitudinal axis parallel to such property.

7.10.5 Propane motor fuel dispensers and storage tanks located on property occupied by schools shall be located as the following;

- (a) Minimum distance between filling plant tanks and educational facilities other than service buildings shall be 100 feet (30 m).
- (b) Ends of storage tanks shall not face educational buildings.
- (c) Vehicles being filled are to be parked at right angles to storage tank(s).

7.10.6 A tank located on an oilfield lease site shall have not less than 25 ft (7.5 m) separation between the propane tank and the wellhead.

7.11 Tank supports

7.11.1 Secure anchorage or sufficient pier height shall be provided for each tank to prevent flotation wherever high flood water can occur.

7.11.2 A horizontal tank with a capacity of 2000 USWG (7500 L) or less shall

- (a) be mounted on a maximum of two supports, and these supports shall be of noncombustible material in the form of piers, pads, saddles, blocks, steel beam skid rails, or concrete, each of sufficient strength to support the weight of the tank when filled to capacity with propane;
- (b) not be installed with an individual block or pad at each leg of the tank;
- (c) have the top of any support not less than 3 in (75 mm) above grade, and the clearances between the bottom of the tank and grade shall not be less than 6 in (150 mm); and
- (d) be installed with a maximum distance of 30 in (750 mm) between the bottom of the tank and a concrete pad, slab, or grade.
- (e) Or, at wellhead sites only, be mounted on two propane tank supports consisting of 3" x 12" rough cut lumber (approximately 10 feet in length) which are then covered with a minimum of 2" gravel.

7.12 Filling plants and refill centers

7.12.14 The installation of all new and relocated propane filling plants (including bulk plants over 5000 USWG) shall not proceed until site plans are submitted to Gas Inspections and approved to proceed. All installations are to be reported on a gas permit. This includes a filling plant where propane is not for resale (for owner use only).

7.19.4 Protection against vehicular traffic

- 7.19.4.4.1** An equivalent barrier in accordance with 7.19.4.4 for the protection of a propane exchange is one consisting of a minimum 30" above grade and
- i. minimum 3" diameter, round or square, capped steel pipe, or
 - ii. minimum 3" diameter, round or square, tubing filled with concrete, with a welded footplate bolted to an uncracked concrete base (having a minimum 4" thickness) using ½" anchor bolts that are set at least 2" apart and at least 3" from the edge of the concrete.
- The barrier shall be painted with a corrosion resistant yellow coating.

- 7.19.4.4.2** Barriers constructed per 7.19.4.4.1 shall be installed with a maximum spacing of 36" on centre at a minimum of 12" from the cabinet.

9 Vaporizers

Δ(March 2017) **the following clause in CSA B149.2-15 is removed:**

- 9.1.10** *An emergency shutdown system shall be installed in any tank system supplying propane to a direct-fired vaporizer. The electric or pneumatic or mechanical shutoff system shall be able to be activated by pushing a panic button, or pulling a chain or cable that shall be located at least 25 feet (7.6 m) away from the vaporizer and tank(s) and shall be able to shut off the supply of propane to the vaporizer by closing the valves at the liquid line and the gaseous line at the tank.*

and replaced with the following:

- 9.1.10** **An emergency shutdown system shall be installed in any tank system supplying propane to a direct-fired vaporizer. The emergency shutdown system may be of the electrical, pneumatic or mechanical type or a combination thereof and the means to activate the emergency shutdown system shall be located at least 25 feet (7.6 m) from the direct-fired vaporizer/s. The emergency shutdown system when activated shall initiate shut-off of the liquid line at the tank location that is connected to the vaporizer.**

Note: This is an early adoption of Clause 9.1.10 which has been approved to appear in CSA B149.2-20.

