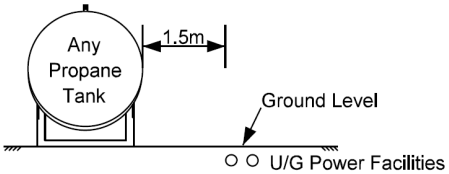
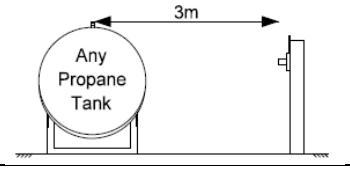
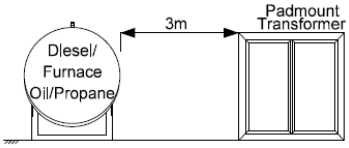
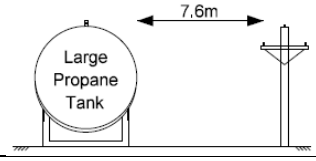
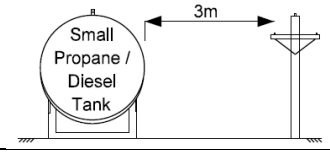
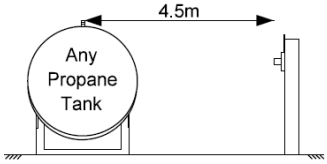
NOTICE TO CONTRACTORS

CLARIFICATION OF RULES ON PROPANE CYLINDERS, PROPANE TANKS AND ARCPRODUCING

The minimum separations between electrical equipment and propane tanks can be found in Table 1, with the corresponding codes following. Any variance needs to be reviewed and approved by GNWT Electrical Inspections, GNWT Gas Inspections and Power Supplier **prior to installation.**

Table 1: Minimum Separations

	Minimum Separation
Between Propane Tank and Underground Powerline 	1.5meters
Between Propane Tank and Meter 	3 meters
Between Propane/Oil Tank and Padmount Transformer 	3 meters
Between Large Propane Tank (7600L or Larger) and Overhead Powerline 	7.6 meters to 15 meters (depending on voltage)
Between Small Propane Tank (less than 7600L) and Overhead Powerline 	3 meters
Between Propane Vaporizer and Powerline 	4.5 meters

Canadian Electrical Code – CSA C22.1:24

2-328 Electrical equipment near combustible gas equipment (see Appendix B) - For locations that do not have a hazardous area classification in accordance with Rule 18-004 or J18-004, the clearance distance between arc-producing electrical equipment and a combustible gas relief device or vent shall be in accordance with the requirements of CSA B149.1 and CSA B149.2.

Appendix B note to Rule 2-328

The clearance distances specified in B149.1 between a source of ignition and a combustible gas relief discharge device or vent are as follows:

a) 1 m for natural gas; and
b) 3 m for propane gas.

Table 63: Hazardous areas for propane dispensing, container filling, and storage

Part	Location	Extent of Hazardous Location*	Group IIA hazardous location
E	Pumps, vapour compressors, gas-air mixers, and vaporizers (other than direct-fired or indirect-fired with an attached or adjacent gas fired heat source) Outdoors in open air at or above grade	Within 4.5 m in all directions from this equipment and within the cylindrical volume between the horizontal equator of the sphere and grade (see Diagram 8)	Zone 2

**The classified area shall not extend beyond an unpierced wall, roof, or solid vapor-tight partition.*

CSA C22.3 No. 7:20 Underground Systems

6.5.2 Propane Gas Separation – A propane gas discharge opening shall be separated radially by or with an open-air distance (such as around a corner) or a minimum 3 m from the following:

c) Transformer;
d) Switchgears;
e) Electrical metering equipment with an internal service disconnecting feature;
f) Meter base plug-in transfer devices; or
g) Meter base plug-in devices with an internal service disconnecting feature, including remote disconnect.

CSA 22.3 N0.1:20 Overhead Systems

5.7.7.1 Clearance from propane tanks – In order to conform to CSA B149.2, clearances from propane tanks shall be as follows:

a) Supply lines shall not be installed over propane tanks of an aggregate capacity of 7600 L or greater
b) Overhead supply conductors less than or equal to 22kV shall have a horizontal clearance at rest of 7.6m from propane tanks that have an aggregate capacity of 7600 L or greater; and

c) Overhead supply conductors greater than or equal to 22kV shall have a horizontal clearance at rest of 15m from propane tanks that have an aggregate capacity of 7600 L or greater

CSA B149.1 definition of a Relief Device and Vent:

Relief Device — a device designed to open to prevent a rise of gas pressure in excess of a specified value due to an emergency or abnormal conditions. The definition refers to pressure relief on the tank. Every tank has a relief device. They are designed for emergency relief only. Under normal operating circumstances, it will not relieve pressure.

Vent – this refers to the vent you see on the regulator set. If it happens to be within a hazardous area, it may be piped to a point outside the hazardous area.

This bulletin has been forwarded on behalf of NAKA Power Utilities, who can be reached at https://www.nakapower.com/en-ca/contact-us.html.