

# Relief Vent Clearances to Electrical Equipment

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## Relief Vent Clearances to Electrical Equipment

The Electrical Safety Authority (ESA) has updated its bulletin describing clearance requirements for electrical equipment near combustible gas equipment. Bulletin 2-10-9 can be found on the ESA website at [esasafe.com](http://esasafe.com), then type in "Bulletin 2-10-9" in the search field. The key points are:

1. Gas relief devices or vents shall not be installed within 1 metre of electrical equipment that can produce arcs, including but not limited to receptacles and switches, and air conditioning units and their disconnect switches.
2. Limited Relief: Overpressure Cut-Off (LR-OPCO) devices (that relieve 1.5 m<sup>3</sup>/hr or less) can be installed no closer than 0.3 metres to the electrical equipment listed in item 1) above, when measured from the relief vent. The use of LR-OPCO regulators is an alternative to use when the relief vent clearances cannot be met, either by placement of a typical regulator, or by piping it away.
3. Figure 1 shown at right is from ESA Bulletin 2-10-9, and shows the relief vent being placed at least 1 metre away from **electricity meter bases**. This is applicable **ONLY** when there are integral internal contacts in the meter used for recording or remote readings. (i.e. Load limiter). However, the ESA has informed Enbridge Gas that since the electricity distributor reserves the right to install arc-producing metering devices at any time they choose, each distributor may also choose to enforce this rule even if the installation presently complies with the Electrical Safety Code.

Builders should in all cases be prepared to meet the minimum 1 metre clearance. Only when there is no other alternative will Enbridge Gas consider using the LR-OPCO regulator to reduce the clearance.

**Note:** Local electrical utilities may have more stringent requirements. Check with your local electrical utility for additional requirements.

### Excerpt from ESA Bulletin 2-10-9

Figure 1 illustrates an example of an installation that complies with the minimum requirements.

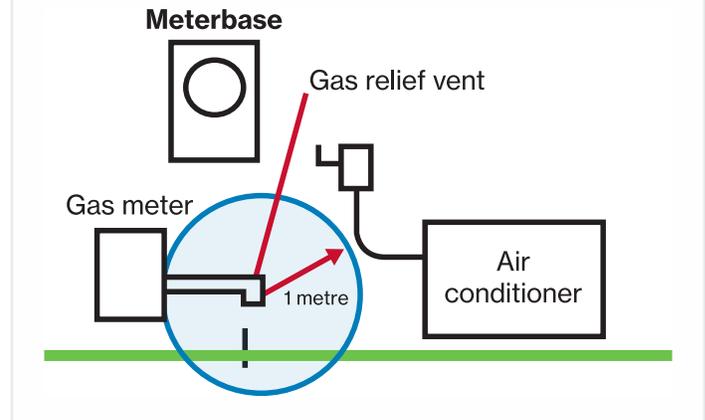


Figure 1: Minimum clearance required between electrical equipment and Gas relief source



**Background:** Under CSA standard B149.1 section 5.5.9, the clearances from relief devices are listed in Table 5.2. For natural gas certified overpressure protection devices conforming to CSA 6.22, the clearance from a source of ignition is 0.3 m.

Under CSA standard Z662-11, Section 12.4.15.6 (see section 2 (12) in TSSA Code Adoption Document FS-196-12) lists the clearances from relief devices. For natural gas, CSA 6.18 certified OPCO (overpressure cutoff) regulators with limited relief of (1.5 m<sup>3</sup>/h) or less, the clearance from a source of ignition is 0.3 m (see the example in Photo 1).



Questions can be directed to Enbridge Gas at **1-800-924-5534**. The question will be directed to a technical representative who will return your call.