
Electrical Distribution Safety

General:

Recently there have been concerns from the Natural Gas Companies and questions from the LDC's if an electric meter is considered as an arc producing device. In most cases, they are not. Meters containing integral contacts for remote disconnection and reconnection of service and/or load limiting capability, are considered to be arc-producing equipment. An external load limiting device plugged into the meter base would also be considered as an arc producing device.

Ontario Electrical Safety Code (OESC) Requirements:

Customer owned meter mounting device locations *shall be in compliance with the supply authority* as per OESC Rule 6-408(1)(f). Rule 2-324 states that *when installed outdoors, arc producing electrical equipment shall not be installed within 1 m of the discharge of a combustible gas relief device or vent.*

This bulletin is to inform LDC's of the natural gas requirements and the OESC Bulletin #2-10-9 Electrical equipment near combustible gas equipment.

<http://www.esasafe.com/assets/files/esasafe/doc/Bulletins/2-10-9.pdf>



Natural Gas and Propane Installation Code B149.1 Requirements:

A natural gas meter contains an external relief device which is designed to open to prevent a rise of gas pressure. Installation Code B149.1 section 5.5.9 requires the discharge from relief devices to terminate outdoors with clearances specified in Table 5.2. The natural gas discharge clearance of 1.0 m is required from all sources of ignition.

Ont. Regulation 22/04 Requirement:

Section 4 Safety standards (1) states *All distribution systems and the electrical installations and electrical equipment forming part of such systems shall meet the primary safety standard set out in subsection (2) by meeting the safety standards set out in subsections (3), (4), (5) and (6).*

ESA Recommends:

- The field staff involved with installing electric revenue meters or a plug in load limiting device should understand the Gas Code B149.1 clearance requirements from the meter or device containing integral contacts to the discharge gas relief device. For existing installations that do not have a 1.0 m clearance, the LDC could work with the gas company to install a certified overpressure cut-off (OPCO) type regulator conforming to CSA 6.22 (which only requires 0.3m clearance from arc-producing equipment)
- Where an LDC uses arc producing electric metering equipment on a regular basis, include the requirements for a harmonized clearance with the gas code in their approved standards and Conditions of Service.

ADDITIONAL INFORMATION:

Information requests and follow-up may be directed to ESA at Utility.Regulations@ElectricalSafety.on.ca. For questions on this bulletin please be prepared to quote Bulletin “DSB-01/13”.