



Fuels Safety Program	Ref. No.: FS-268-23	Rev. No.: 1
ADVISORY	Date: May 31, 2023	Date:

Subject: Electrical Approval Requirements for Equipment and Installations subject to TSSA Approval
Sent to: Posted on Web-Site

The Technical Standards and Safety Authority (TSSA) Fuels Safety Program reviews fuel systems and device design submissions to ensure compliance with the Technical Standards and Safety (TSS) Act and its adopted regulations, safety codes and standards.

Applicable codes require that an electrical portion of the fuel system comply with the Ontario Electrical Safety Code.

To ensure that the equipment/installation is electrically safe, Fuels Safety will require evidence of an acceptable electrical approval prior to the inspection of field approvals or inspections of fuel facilities. TSSA will not pass an inspection or apply a Field Approval label if there is no evidence of electrical approval.

The codes that govern storage, handling and utilization of fuels at these types of sites require that electrical system complies with the local or the Canadian Electrical Safety Code:

The installation of electrical equipment at a facility shall be in accordance with the requirements of the Electrical Safety Code. (6.6 Liquid Fuels Handling Code 2017)

Electrical connections between an appliance and building wiring shall comply with the local electrical code or, in the absence of such, with CSA C22.1, Canadian Electrical Code, Part I. (4.6.1 B149.2-20)

All electrical equipment and wiring installed in a digester/landfill/biogas system shall conform with the following:

in Canada: CSA C22.1 (4.7.4, 14.7.4, 23.7.4 B149.6-20)

For facilities such as gas stations, propane sites, CNG stations, digester/landfill/biogas sites etc. Electrical Safety Authority will issue a Certificate of Acceptance for the wiring of the entire installation.

The CSA B139 and B149 series of codes, that govern the use of natural gas, propane and fuel oil in appliances, require that electrical components of the fuel system comply with the local or the Canadian Electrical Safety Code:

Electrical connections between an appliance and building wiring shall comply with the local electrical code or, in the absence of such, with the Canadian Electrical Code, Part I. (4.7.1 B149.1-20)

Electrical wiring and equipment shall be installed in accordance with provincial or territorial regulations or, in the absence of such regulations, in accordance with the Canadian Electrical Code, Part I. (4.6, B139-19)

Field Approvals of appliances and mobile food service equipment require approval from an accredited electrical approval body for the entire electrical system. This applies to appliances that are custom-made, built on site or in limited numbers not conducive to certification by designated certification organizations. The Field Approval program also applies to appliances installed on Mobile Food Service Equipment (MFSE) like food trucks, chip wagons, coffee trucks, and hotdog and hamburger carts.

Proof of compliance to these requirements, acceptable to TSSA, will be in the form of a label or a Certificate of Acceptance issued by a field evaluation agency recognized under the Ontario Electrical Safety Code and Ontario Regulation 438/07. The inspection must be for the entire appliance including its control panel(s), and the wiring to and from the panel(s). Recognized approval marks can be found at the following link under SPE-1000 Field Evaluation Marks: <https://esasafe.com/electrical-products/recognized-certification-marks/>