

Bulletin 2-31-0
Application of OESC to electrical installations within distributor owned stations
Rule 2-000

Issued August 2023

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1) Background

The intent of this bulletin is to clarify the application of Ontario Electrical Safety Code (OESC) requirements including Plan Review submissions, filing notifications of work and inspections for electrical equipment and electrical installations within distributor owned stations*.

() Distribution stations - typically with voltage not exceeding 50kV on the high voltage side.*

Rule 2-000 a) provides an exemption from the requirements of the OESC for electrical equipment and electrical installations used exclusively in the distribution of electrical power or energy intended for sale or distribution to the public.

Reg 22/04 applies to electrical equipment and electrical installations that directly or indirectly support the distribution of power or energy. Section 5 of Reg 22/04 recognizes that meeting the technical requirements of the OESC is one of the acceptable means of establishing that safety standards are met.

Section 8 of Reg 22/04 recognizes the Authority (ESA), professional engineers or qualified persons identified in an approved construction verification program as the parties eligible to carry out the required inspection and approval of construction.

When performing work on the distribution system, electrical distributors, therefore, have the option to meet safety standards by following the requirements of the OESC and engage an eligible party to inspect the work in accordance with Reg 22/04.

2) Exemption from OESC – Reg 22/04 application

The provisions and associated interpretations of Reg 22/04 apply to electrical equipment and electrical installations, which are a direct part, or in support of a distribution system, including but not limited to:

- Poles, towers and other structures;
- Overhead and underground distribution lines & conductors;
- Power distribution transformers;
- Protection and control equipment;
- Grounding and bonding; or
- Ancillary equipment of a station such as, but not limited to:
 - Supervisory Control and Data Acquisition (SCADA) equipment,

- Metering equipment and associated equipment;
- DC station batteries and distribution to support protection and relays operation for the distribution system
- Strip heaters that are part of the distribution equipment

3) Direction

Although the following electrical equipment and installations are not exempt under OESC, ESA will permit the below to follow the provisions and processes under Reg 22/04 to demonstrate compliance with the OESC, (without filing notifications with the ESA), under the associated conditions:

Indoor – lighting, general-purpose receptacles, transformers with a secondary voltage below 750 V & downstream panelboards, sump pumps, space heating, etc.

Conditions:

- The building/structure is either secured (tamperproof hardware and/or locked) or located within a secured fenced compound;
- The primary purpose of the building/structure and these electrical installations is to support the distribution of power;
- The electrical installations are not accessible to public (including employees who are not qualified trades personnel* to interact with such systems); and
- The building is dedicated to housing distribution equipment (e.g. switching arrangement) and contains no other occupancy (such as, but not limited to meeting rooms, offices, cafeterias, warehouses, garages, machine shops, recreational facilities, training facilities, etc.)

() Clarification: Qualified trades personnel may include journeyperson operators. Under special circumstances, journeyperson operators may need to temporarily occupy an emergency operations center room located inside a substation building.*

Outdoor – lighting, station motorized gates, fencing, security equipment, underground vaults, cooling fan power, etc.

Conditions:

- Outdoor installations when the facility is fenced, includes only building/structures as described above, and does not contain any other building.

All other electrical installations and equipment for facilities (including but not limited to construction trailers), systems and processes that are not a direct and integral or supporting part of the electrical distribution system will be subject to the requirements of the OESC including filing notifications of work, Plan Review submission, GPR studies etc.