

HANDOUT: Changes in the Electrical Code (3 pages)
Skill Builders: Key Words & Phrases, Skimming, Scanning

IN THE WORKPLACE: The 24th edition of the Canadian Electrical Code (2018) contains a number of significant changes and updates to better ensure safe installation and maintenance of electrical equipment in order to prevent hazards and ensure proper maintenance and operation. It is the responsibility of apprentices and journeypersons to be certain their work is consistent with the latest version of the Code.

Refer to the article **Changes in the 2018 Electrical Code** and your own research to complete the tasks and locate answers to the questions.

1. What do each of the following acronyms stand for?

a) EVSE: _____

b) GFCI: _____

c) LED: _____

d) TR: _____

2. What does the term “wet areas” refer to?

3. What voltage LEDs are affected by the 2018 change?

4. What new rules and subrules also refer to the provision of power related to electric vehicles?

5. When was the previous version to the 2018 Code published? Assuming the same number of years between revisions, when will the next version be published?

6. Changes to the Code typically reflect changes in consumer behaviour and expectations. Select 2 of the changes and in your own words describe why you think the changes were made.

Changes in the 2018 Electrical Code

The 2018 Canadian Electrical Code, Part I includes a number of significant updates and changes to better help electrical workers in the safe maintenance of electrical equipment and create safer electrical installations. **Here are 4 key changes.**

1. Disconnecting means for LED luminaires

2015 Code — disconnecting means required for fluorescent ballasts

2018 Code — disconnecting means required for fluorescent ballasts and LED drivers

To support safe maintenance, the Code has for several editions required disconnecting means for fluorescent luminaires utilizing double ended lamps and operating at more than 150 V. With increased use of LED lighting, the requirements have been extended to LED luminaires exceeding 150 V to ground with double ended lamps.

2. Tamper resistant (TR) receptacles

2015 Code — TR receptacles required in dwelling units and child care facilities

2018 Code — TR receptacles required in additional occupancy types

The requirement for tamper resistant receptacles in dwelling units and child care facilities is expanded to include other areas where children may be present including hotel guest rooms, preschools, and elementary education facilities.

3. Increased GFCI protection for wet areas

2015 Code — No requirement for GFCI protection for heaters or controls in bathrooms

2018 Code — GFCI protection required

Similar to GFCI requirements for receptacles in the vicinity of showers, sinks or tubs, new Section 62 Rules mandate GFCI protection for electric heating devices and heating controls in the vicinity of sinks, showers or tubs.

4. Electric vehicle energy management system

2015 Code — EV supply equipment loads added to load calculations at 100% of rating

2018 Code — demand factors recognized where energy management system used.

Electric vehicle supply equipment (EVSE) can draw a substantial load when in the charging mode. For existing buildings, the addition of EVSE can result in the total load exceeding the existing service capacity. In this case, the first option is to increase the service size. A second option is to install a system to monitor the power being drawn by EVSEs and other building loads, and control the EVSE loads such that the overall load does not exceed the limits of the existing service, feeders, and branch circuits. In combination with new Rule 8-500 and new Subrules 8-106(11) and (12) such systems are now recognized in the Code as Electric Vehicle Energy Management Systems (EVEMS). Complementary to the introduction of EVEMS, a new Table of loads and demand factors has been added specifically for EVSE.

Ref: Electrical Industry Newsweek. (June 28, 2018). 2018 Canadian Electrical Code, Part I: Top 15 Changes. <https://www.electricalindustry.ca/latest-news/3739-2018-canadian-electrical-code-part-i-top-15-changes>