

BULLETIN 2005-005-EL

Revised May 30, 2016

INSTALLATION OF ADDITIONAL 240 V APPLIANCE BRANCH CIRCUITS IN DWELLING UNITS

The intent of this bulletin is to clarify the requirements and conditions under which installation of additional 240 V appliance branch circuits in dwelling units may be permitted.

BACKGROUND

Rule 26-744(4) of the Canadian Electrical Code, Part I (CEC) mandates installation of a receptacle of CSA Configuration 14-50R for a free-standing electric range having a calculated demand of 50 A or less. CEC Rule 8-200(1)(a)(iv) provides loading requirements for such electric range in a dwelling; and Rule 8-300 regulates a demand of branch circuit conductors supplying this electric range. Thus, a typical one-family dwelling or each dwelling unit of a two-family dwelling would have one 240 volt, 40 A branch circuit that supplies power to the electric range installed in the kitchen of the dwelling. The Vancouver Building By-law (VBBL) recognizes the fact that a secondary suite or a lock-off unit may be constructed or created within a one-family dwelling; or both of the dwelling units or in one of the dwelling units in a two-family dwelling, provided that specific requirements of Section 9.37. and Subsection 11.4.3. of Division B of the VBBL are met. Sentence 9.34.1.1.(2) of Division B of the VBBL and Section 7.3.5 of the Vancouver Electrical By-Law No. 5563 contain requirements to accommodate the impact of additional loads of a smaller dwelling unit within the principal dwelling unit on the electrical service of the building. Furthermore, Bulletin 2000-042-BU/EL clarifies the installation requirements of the panelboards and circuits in the dwelling units with secondary suites or lock-off units.

REQUIREMENTS

In light of a possible development of a secondary suite or lock-off unit in a newly constructed one-family dwelling or two-family dwelling, every electrical permit issued for a one-family dwelling or two-family dwelling is provided with a term or condition (see NOTE) that allows installation of an additional 240 V, 40 A appliance branch circuit (for future electric range) in a one-family dwelling or two-family dwelling provided that the following requirements and conditions are met:

- 1) The additional 240 V, 40 A appliance branch circuit is intended only for use that is authorized by the provisions of Vancouver Building By-law or Vancouver Zoning and Development By-law.
- 2) In the portion (the future smaller dwelling unit) of the dwelling unit that is designed to facilitate future development of a secondary suite or lock-off:
 - (a) kitchen counter receptacles, refrigerator receptacle and branch circuits must be provided in conformance with CEC Rules 26-712 and 26-724;
 - (b) notwithstanding CEC Rule 26-400(1), a separate combination panelboard must be installed. See Bulletin 2000-042-BU/EL;
 - (c) for the purpose of CEC Rule 26-724(a), all wiring between the future dwelling units must be separated, branch circuits for the future smaller dwelling unit must be connected to that particular panelboard as required in the foregoing item (b); and

- (d) receptacles having CSA configuration 5-15R or 5-20R installed within 1.5 m of the kitchen sink or in the space where complete plumbing is installed to accommodate the future kitchen sink must be protected by a Class A ground fault circuit interrupter.
- 3) A load of 6 kilowatts must be added to the determination of minimum ampacity of the service.
 - 4) The additional branch circuit must be terminated at the receptacle of CSA Configuration 14-50R.
 - 5) For the purpose of CEC Rule 4-004(23), the service or feeder conductors supplying a one-family dwelling or each dwelling unit of a two-family dwelling are not permitted to be sized in accordance with Table 39 of the CEC.
 - 6) On the application for a permit that covers the installation of additional 240 V appliance branch circuits, a box indicating the "Branch Circuit For Future Range" must be checked by the electrical contractor.

NOTE

IT IS PERMITTED TO INSTALL 1 ADDITIONAL 240V, 40 A BRANCH CIRCUIT IN A ONE-FAMILY DWELLING; OR BOTH OF THE DWELLING UNITS OR IN ONE OF THE DWELLING UNITS IN A TWO-FAMILY DWELLING PROVIDED THAT THE AMPERE RATING OF THE SERVICE IS ALSO BASED ON THE ADDITIONAL LOAD OF THIS CIRCUIT. THE CIRCUIT TO BE TERMINATED AT THE RECEPTACLE OF CSA CONFIGURATION 14-50R THAT IS INTENDED FOR "AUTHORIZED" USE ONLY. ADDITIONAL REQUIREMENTS CLARIFIED BY BULLETIN 2005-005-EL MUST ALSO BE MET. "AUTHORIZED" MEANS PERMITTED BY THE PROVISIONS OF THE VANCOUVER BUILDING BY-LAW, VANCOUVER ZONING AND DEVELOPMENT BY-LAW OR SIMILAR REGULATIONS. WARNING - THIS PERMIT DOES NOT AUTHORIZE A USE THAT IS NOT APPROVED UNDER THE ZONING AND DEVELOPMENT AND/OR THE VANCOUVER BUILDING BY-LAWS, SUCH AS ADDING ANOTHER DWELLING OR HOUSEKEEPING UNIT.

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