

ELECTRICAL BULLETIN

2014-01

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Subject: Consumer's service requirements and restrictions

This bulletin supersedes Electrical Bulletin 2000-02 (Rev 1).

This bulletin indicates the requirements and restrictions for:

- (i) the consumer's service, and
- (ii) the associated consumer's service equipment.

This bulletin applies to the above when any one or more of the following situations exist:
(See notes 1, 2 & 3)

- a. the supply service to the building is 250 V or greater
- b. the consumer's service box has a main over current device rated or set at 250 A or greater
- c. the conductors and service box of the consumer's service both have an ampacity or nameplate rating equal to or greater than 250 A even where the main over current device in the service box is rated or set at less than 250 A, or
- d. the combined rating of 2 or more consumer service boxes exceeds 250 A and are connected to one supply service and the service boxes are grouped in a common area/occupancy within the building

The following more common scenarios indicate the requirements and restrictions for various situations based on one or more of the above situations applying. (refer to applicable notes)

Scenario 1

A supply service is provided to the building and enters the building through the consumer's service:

- (i) the consumer's service conductors and/or raceway shall not extend more than 3 m from where they enter the building to where they enter the consumer's service box,
- (ii) the consumer's service conductors shall terminate into an appropriately sized overcurrent device in the consumer's service box, and
- (iii) the consumer's service box and consumer's service equipment shall be located in a separate main electrical room within the building.

Scenario 2

A single service disconnecting means is installed in accordance with the Canadian Electrical Code, Part 1, 2012 (CEC) rule 6-206(3) and the disconnect means is provided with an appropriately sized overcurrent device : (See note 16)

- (i) the consumer's service conductors and /or raceway may extend beyond 3 m from where they enter the building, and
- (ii) the service conductors shall terminate into a single appropriately sized overcurrent device located in a separate main electrical room within the building.

Scenario 3

A supply service is provided to the building and feeds a single gang meter base with two separate loads, or it feeds a mutli gang meter base and the meters are located on the outside of the building: (See note 17)

- (i) each consumer's service conductors and/or raceway shall not extend more than 3 m from where they enter the building to where they enter their respective consumer service boxes,
- (ii) each individual consumer's service conductors shall terminate into an appropriately sized overcurrent device in each of their respective consumer service boxes, and
- (iii) the consumer's service boxes shall be located in a separate main electrical room within the building.

*For scenarios other than those indicated, in which this bulletin applies, contact the electrical inspection agency prior to installation to ensure the acceptance of the installation.

Requirements and restrictions as indicated in this bulletin may apply to those other scenarios.

Notes:

1. Single dwellings as defined in the CEC are exempt from the main electrical room requirements of this bulletin.
2. Where an alternative source of electric power or energy other than from an electric utility is used to operate or energize the building or site as the primary power supply this bulletin shall apply.
3. Where another service, provided for another building or area, is subfed from a properly sized overcurrent device located in the main electrical room the requirements of this bulletin do not apply to that new electrical service for that building or area. A separate room may be required to limit access and ensure safety however.
4. Where a main electrical room is required it shall be used for no other purpose and contain no other equipment other than the consumer's service box and the associated consumer's service equipment unless otherwise noted in this bulletin.

5. Fire alarm and/or security alarm panels or UPS systems are not permitted in the main electrical room.

6. A communication supply service may terminate in the main electrical room but the associated distribution equipment or communication racks must be located in another room or area and distribution occur from there, or the communication supply service may pass through or completely bypass the main electrical room and terminate in another approved location in the building and be distributed from there.

7. No pipes, ducts, conduits, equipment or systems which may contain liquids, gases, fuels, steam or vapour shall enter or be installed in the main electrical room unless it is required for a specific reason for only the main electrical room, such items could be, but not limited to, a sprinkler head and/or a heating unit.

Where such a requirement exists the associated device shall not be installed over any electrical equipment and the associated pipes, ducts or conduits shall not be installed over any electrical equipment unless the piping, duct or conduit is provided with an additional suitable enclosure that will contain the liquid, gas, fuel, steam or vapour in the event of failure.

8. The fire rating of the main electrical room shall be determined by the building inspector having jurisdiction for the area in which the project is occurring. For the construction and design requirements of a 1 hour rated room contact the local building inspector

9. If a building inspector determines the main electrical room is not required to have a 1 hour rating, a separately enclosed main electrical room is still required where indicated in this bulletin. Construction of this room, as a minimum, may consist of such material as plywood or gypsum board and the room shall have a door capable of being locked.

10. Any building code requirements for the main electrical room shall also be implemented.

11. A main electrical room shall not be required for a building that contains only electrical and/or mechanical equipment such as pump houses, sewage lift stations, emergency generator buildings, power or control buildings or other similar buildings.

This exception does not apply where the building contains occupancy, such as office space, living or employee work areas. This exception is subject to review by the electrical inspector to ensure other situations would not warrant a main electrical room.

12. Existing consumer's service that are not contained within a main electrical room installed prior to 1974, may at the discretion of the electrical inspector, remain as is.

13. Where the use or hazardous classification of the building or area has changed that creates an unsafe condition a main electrical room shall be required.

14. When an existing electrical service entrance is upgraded and one of the conditions indicated in this bulletin applies, a main electrical room shall be required.

15. The main electrical room shall also comply with all applicable rules of the latest edition of the CEC such as arc flash marking, fire and flame spread, adequate working space, entrance and exit requirements, sprinkler protection, illumination and ventilation etc.

16. Only the main overcurrent device associated with the main disconnecting means may be located outside of the building. All the feeder or branch overcurrent devices must be located within the building.

17. Where a single gang meter base is used to feed two loads the meter base shall be approved for that application.

18. Ensure all electrical equipment used outdoors is properly rated for the environment in which it is being installed.

19. This bulletin shall be used in conjunction with Electrical Bulletins 2007-01 and 2012-01 and is not intended to conflict with these bulletins, where any discrepancies occur this bulletin shall be used unless otherwise directed by the Provincial Chief Electrical Inspector.

This bulletin may be subject to revisions at any time.

Review Dept. of Labour Electrical Bulletins at:

<http://novascotia.ca/lae/electricalsafety/electricalbulletins.asp>

Review NSPI Electrical Bulletins at:

<https://www.nspower.ca/en/home/for-my-home/electrical-inspections/default.aspx>

Any deviations or questions concerning this Bulletin may be forwarded to the:
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