

ELECTRICAL INSPECTION BULLETIN
B-02-022
Minimum Requirements for Upgrading Service for Single Dwellings



(Effective 2024-07-02)

General

The following requirements are to be applied to single dwellings where the service characteristics are being upgraded. This will normally include, but not be limited to, an increase in service capacity, upgrade from a two wire to a three-wire service voltage, addition of another consumer's service, etc.

These requirements shall not apply to repairs, relocation, replacement, etc., of an existing service where there is no change in service characteristics.

Requirements

1. All hazardous wiring conditions must be corrected. The inspector will look for any obvious fire / shock hazards, e.g.
 - a. NMD for hot water tanks exposed to mechanical damage,
 - b. Ungrounded receptacle circuits not GFCI protected in accordance with CE Code Rule 26-702,
 - c. System grounding conductors requiring replacement,
 - d. Keyless light fixtures in closets.
 - e. Etc.

2. Service Entrance:
 - a. Service Entrance equipment shall be installed in accordance with the applicable sections of the adopted CE Code, Part 1 and all applicable DOL & NSPI Bulletins as well as NSPI Utility Service Requirements and Metering Standards.
 - b. Service Entrance equipment shall include that entire portion from the point of the utility supply connection; normally the service weather head; up to and including the service box, and associated system grounding.

3. Receptacles:
 - a. Kitchen
 - i. Duplex receptacles shall meet CE Code Rule 26-722, d) iii).
 - ii. Existing duplex receptacles may be included as long as one existing or new receptacle is a 15A split or 20A duplex.
 - iii. Duplex receptacles shall not be required to be installed on an existing peninsula or island counter area under the requirements of this bulletin.
 - b. Outdoors
 - i. One duplex receptacle shall be installed outdoors as required by CE Code Rule 26-724, 2), regardless of perimeter length, and supplied from a separate branch circuit.

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- c. Occupied Rooms
 - i. Where no duplex receptacles exist in an occupied room, at least one duplex receptacle shall be installed. An occupied room shall include all rooms that are in use for any reason, e.g., workshops, utility room, etc., but shall not include unfinished attics and basements, bathrooms, washrooms, storage/closets and like areas.
 - d. Bathrooms and Washrooms
 - i. A receptacle is not required to be in a bathroom or washroom on a change of service. Where a receptacle exists or is installed, it shall be located at least one meter from the bathtub or shower or as permitted by CE Code Rule 26-720, f) & g). Receptacles located within 1.5 m of the washbasin, bathtub or shower stall shall be electrically protected by a ground fault circuit interrupter as required by Rule 26-704, 1).
4. Branch Circuits
- a. A separate circuit must be provided for each of the following if present:
 - i. Refrigerator
 - ii. Water Pump
 - iii. Furnace, Boilers, Hot Water Tanks (Oil or Gas as opposed to electric)
 - iv. Laundry Room
 - v. Other loads exceeding 1500 watts (unless connected as per Rule 26-746)
 - b. AFCI protection
 - i. Shall be installed for all new branch circuits installed in accordance with Rule 26-658.
 - ii. Is not required when reconnecting existing circuits into the new consumer's panelboard.
 - c. Ungrounded circuits supplying U grounded receptacles shall be installed to meet the requirements of Rule 26-702.
5. Lighting
- a. Stairway lighting shall be provided and controlled by a single wall switch located at the head of the stairs.
 - b. Wall switches may be wired or wireless.
 - c. Every room shall be provided with a wall switch and luminaire or a switched receptacle.

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6. Smoke Alarms
 - a. Smoke alarms shall be installed in a location between the sleeping rooms and the remainder of the storey, and if the sleeping rooms are served by a hallway, the smoke alarm shall be located in the hallway.
 - b. Smoke alarms need not be provided on floor levels without sleeping rooms.
 - c. Wired or wireless interconnection of smoke alarms is required so that when one alarm sounds, all will sound.
 - d. Smoke alarms shall meet the requirements of CE Code Rule 32-200, including a wired power connection.

7. 2nd Consumer's Service (2 maximum, 400 amps total) for a Single Dwelling with one Supply Service
 - a. Include Items 1 through 6 above.
 - b. A load study shall be provided for inspection (existing & new).
 - c. Branch circuits and wiring devices / boxes / disconnects shall be installed for all loads identified above before connection by the supply authority.
 - d. All meters and service boxes shall be identified to differentiate between the 1st and 2nd consumer's service (CE Code Rule 6-214).
 - e. The existing consumer service will need to be brought up to current code and utility service requirements.
 - f. Provide grounding as per CE Code Rule 10-210.
 - g. Maintain separation of circuits from each consumer's service.
 - h. Group service boxes, for the same building, together (CE Code Rule 14-106).
 - i. Both meters shall be self-contained (not transformer rated) as per SS-SK-01M of the Utility Service Requirements.
 - j. Both meters will carry base charges which should be considered by the customer prior to requesting a second service.