

Electrical Contractors and the New Jersey Rehabilitation Code

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Information is based on the presently adopted
electrical subcode – NEC 2005.

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Rehabilitation Subcode for Electrical Contractors

Summary of Electrical Requirements

Products and Practices Sections 6.4(d)3, 6.4(e)2, Repairs;
6.5(d)3, 6.5(e)6, Renovations;
6.6(d)3, 6.6(e)8, Alterations
6.7(d)2, 6.7(e)8, Reconstruction.

The following electrical Products and Practices shall not be used:

Unlisted or unapproved electrical products. As stated in the National Electrical Code (sections 90.7, 100, 110.2, and 110.3), only electrical products listed, labeled, approved, and identified are acceptable. Approval is to be based on tests and listings of testing laboratories such as Underwriters Laboratories Inc. (UL), Factory Mutual (FM), or Canadian Standards Association/Nationally Recognized Testing Laboratory (CSA/NRTL).

The following electrical Products and Practices shall be required, when applicable:

Existing electrical wiring and equipment undergoing repair or replacement shall be allowed to be replaced with like material, except for the following:

1. Replacement of electrical receptacles shall comply with the requirements contained in section 406.3(D) of the electrical subcode;
2. Plug fuses of the Edison base-type shall be used only for replacements where there is no evidence of over fusing or tampering per Section 240.51(B) of the electrical subcode;
3. For replacement of nongrounding-type receptacles with grounding-type receptacles, the equipment grounding conductor of a grounding type receptacle outlet shall be permitted to be connected, in accordance with Section 250.130(c) of the electrical subcode
4. Non “hospital grade” receptacles in patient bed locations of health care facilities, Group I-2, shall be replaced with “hospital grade” receptacles; and
5. Frames of electric ranges, wall-mounted ovens, counter-mounted cooking units, clothes dryers, and outlet or junction boxes that are part of the existing branch circuit for these appliances, except for mobile homes and recreational vehicles, shall be permitted to be grounded to the grounded circuit conductor if all the conditions of Section 250.140 of the electrical subcode are met.

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Material and Methods Section 6.8(d) [Applies to all types of work except Repairs]

The following sections of the electrical subcode, (NJAC 5:23-3.16), constitute the electrical materials and methods requirements for the Rehabilitation Subcode:

1. Section 90.7, entitled “Examination of Equipment for Safety” of the Introduction, Article 90;
2. All of Chapter 1 entitled “General” except sections:
 - 110.8 Wiring Methods,
 - 110.26 Spaces About Electrical Equipment (600 Volts, Nominal, or less)
 - 110.32 Work Space About Equipment (over 600 Volts, Nominal)
 - 110.33 Entrance and Access to Work Space;
3. All of Chapter 2 entitled “Wiring and Protections” except sections:
 - 210.11 Branch Circuits Required,
 - 210.52 Dwelling Unit Receptacle Outlets,
 - 210.60 Guest Rooms,
 - 210.62 Show Windows,
 - 210.63 Heating, Air Conditioning, and Refrigeration Equipment Outlet,
 - 210.70 Lighting Outlets Required
4. All of Chapter 3, entitled “Wiring Methods”
5. All of Chapter 4, entitled “Equipment for General Use” except sections:
 - 404.8 Accessibility and Grouping (switches)
 - 408.18 Clearances (switchboards and panel boards);
6. All of Chapter 5, entitled “Special Occupancies;”
7. All of Chapter 6, entitled “Special Equipment;”
8. All of Chapter 7, entitled “Special Conditions;”
9. All of Chapter 8, entitled “Communication Systems.”
10. Existing working clearance, clear space, access and entrance dimensions to working spaces, illumination, headroom clearance, and location of over current protection devices shall be allowed to remain without modification.

Additional Caution – Existing fire alarm, automatic sprinkler, smoke control and emergency power systems shall not be removed without replacement and shall be maintained in operating condition. Applies to all categories of work.

Repairs Section 6.4

- A. The following work shall be considered renovation, alteration, or reconstruction, as appropriate, and not repair work:

Additions to, alteration or relocation of electrical wiring, other than wiring for a low voltage communication system in a one or two family dwelling.

- B. The work shall not cause any reduction of existing structural strength, system capacity, or mechanical ventilation below that which exists at the time of application for a permit or that which is required by the applicable subcode of the UCC, whichever is lower.
- C. See Products and Practices above or sections 6.4(d)3 and 6.4(e)2.

Renovations Section 6.5

- A. The work shall not cause any reduction of existing structural strength, system capacity, or mechanical ventilation below that which currently exists at the time of application for a permit or that which is required by the applicable subcodes of the UCC, whichever is lower. The replacement or addition of fixtures, equipment or appliances shall not increase loads on these systems unless the system is upgraded in accordance with the applicable subcode of the UCC to accommodate the increased load.

- B. See Products and Practices above or sections 6.5(d)3 and 6.5(e)6.
- C. See Materials and Methods above or section 6.8 (d).

Alterations Section 6.6

- A. See Renovations A above (reduction) or section 6.6 (c).
- B. See Products and Practices above or sections 6.6(d)3 and 6.6(e)8.
- C. **Accessibility** – In determining disproportionate cost, the following materials may be deducted from the overall cost of the project: windows, hardware, operating controls, electrical outlets and signage; mechanical systems, electrical systems, installations or alterations of fire protection systems.

Reconstruction Section 6.7

- A. See Renovations A above (reduction) or Section 6.7(c).
- B. See Products and Practices above or sections 6.7(d)2 and 6.7(e)8.
- C. See Materials and Methods above or section 6.7(g).
- D. See Alterations C above (accessibility) or section 6.7(k)2.

Basic & Supplemental Electrical Requirements -- Use Groups – Sections 6.11-6.28

Provisions that activate the electrical subcode, when found within various Use Groups

- Means of egress lighting
- Illuminated exit signs
- Automatic alarm systems, manual alarm system
- Mechanically ventilated spaces
- Emergency systems or smoke detectors

Specific electrical provisions exist in

- Use Group R-1 (Basic section 6.25(o))
- Use Group R-2 & R-4 (Basic section 6.26(o))
- Use Group R-3 & R-5 (Basic sections 6.27(f)).

Electrical Equipment and Wiring – Use Group R-1

Guestrooms shall be provided with one switch-controlled ceiling or wall type outlet or equivalent to illuminate entrances or exits. Additionally, each guest bathroom shall be provided with at least one duplex receptacle outlet which is GFCI protected and at least one switch-controlled lighting outlet.

Electrical Equipment and Wiring – Use Group R-2, R-3, R-4, R-5

1. All enclosed areas, other than kitchens, basements, garages, hallways, closets, laundry areas and bathrooms shall have a minimum of two duplex receptacle outlets.
2. Kitchen areas shall have a minimum of two duplex receptacle outlets or equivalent and a switch-controlled lighting outlet. At least one of the required duplex receptacles shall be provided to serve counter space.
3. Laundry areas shall have a minimum of one duplex receptacle outlet or equivalent located near the laundry equipment and installed on an independent circuit.
4. At least one switch controlled lighting outlet shall be provided in every bathroom, hallway, stairway, attached garage, detached garage with electric power, and to illuminate outdoor entrances and exists.
5. At least one switch controlled lighting outlet shall be provided in utility rooms and basements where these spaces are used for storage or contain equipment requiring service.
6. Electrical service equipment (overcurrent devices) shall be located where they will not be subject to physical damage and shall not be located in the vicinity of easily ignitable material.
7. All 125 volt, single phase, 15- and 20- ampere receptacles in locations specified in section 210.8(A) of the electrical subcode, shall have ground fault circuit protection for personnel.

8. When finished space is created in previously unfinished space, receptacles and lighting outlets shall comply with Section 210.52 and 210.70 respectively, of the electrical subcode.

Change of Use Section 6.31(m)

1. When the character of the use of a building or portion thereof is changed to one of the following special occupancies as described in Chapter 5 of the electrical subcode, the electrical wiring and equipment of the building or portion thereof that contains the proposed use shall comply with all applicable requirements of the electrical subcode regardless of whether a change of use group is involved:

- i. Hazardous (classified) Locations
- ii. Commercial Garages, Repair and Storage
- iii. Aircraft Hangars
- iv. Gasoline Dispensing and Service Stations
- v. Bulk Storage Plants
- vi. Spray Application, Dipping, and Coating Processes
- vii. Health Care Facilities
- viii. Places of Assembly
- ix. Theaters, Audience Areas of Motion Picture and Television Studios and Similar Locations
- x. Motion Picture and Television Studios and Similar Locations
- xi. Agricultural Buildings

2. When the use of a building is changed to Use Group R-2, R-3, R-4, or R-5, the electrical wiring and equipment of the building shall comply, at a minimum, with the Basic Requirements of the rehabilitation subcode for that use and shall have the electrical service (conductors and equipment) sized and rated in accordance with the electrical subcode.

Additions -- Section 6.32

Any addition to a building or structure shall comply with the requirements of the Uniform Construction Code applicable to new construction.

Any repair, renovation, alteration or reconstruction work undertaken within an existing building in connection with an addition shall comply with the requirements of the rehabilitation subcode.

No addition shall create or extend any non-conformity in the existing building to which the addition is constructed with regard to the capacity of electrical system provisions of the Basic Requirements of the rehabilitation subcode.

Historic Buildings -- Section 6.33

Material and Methods - original or replica material and original methods of construction may be used, subject to the provisions of this section.

i. Exception: Components of building systems hidden from public view, including but not limited to electrical equipment and wiring, plumbing equipment and piping and heating equipment, shall comply with Section 6.8 (Materials and Methods).

New Building Elements -- Section 6.9(a) 19

1. Newly installed (not replacing an existing device) electrical service equipment, switchboards, panel boards, motor control centers and other electrical equipment containing overcurrent, switching or control devices likely to require examination, adjustment, servicing or maintenance while energized shall conform with the requirements specified in N.J.A.C. 5:23-6.8, Materials and methods, in addition to:

- 110.26 (Space About Electrical Equipment—600 Volts, Nominal or Less),
- 110.32 (Work Space About Equipment—Over 600 Volts, Nominal),
- 110.33 (Entrance and Access to Work Space),
- 404.8 (Accessibility and Grouping—Switches)
- 408.8 (Clearances—Switchboards and Panel boards), as applicable.

Which means -- additionally all of Chapter 1 & 4 except for 110.8 (Wiring Methods)

2. In addition, other new building elements created may activate the electrical subcode.