

DEPARTMENT OF ENERGY, LABOR AND ECONOMIC GROWTH

DIRECTOR'S OFFICE

CONSTRUCTION CODE

Filed with the Secretary of State on
These rules take effect 60 days after filing with Secretary of State

(By authority conferred on the director of the department of energy, labor and economic growth by section 4 of 1972 PA 230, MCL 125.1504, and Executive Reorganization Order Nos. 2003-1 and 2008-4, MCL 445.2011 and 445.2025)

R 408.30801, 408.30813, R 408.30818, R 408.30834, R 408.30835, and 408.30869 of the Michigan Administrative Code are amended and R 408.30838, R 408.30865, R 408.30870, R 408.30871, R 408.30872, and R 408.30880, are added to the Code as follows:

PART 8. ELECTRICAL CODE

R 408.30801 National electrical code; adoptions by reference; inspection; purchase.

Rule 801. (1) The standards contained in the national electrical code, ~~2005~~ **2008** edition, except sections 501.30B, 502.30B, 503.30B, 505.25B, 506.25B, 547.1 to 547.10, and Annex ~~GH~~, as published by the national fire protection association (**NFPA**), shall govern the installation, replacement, alteration, relocation, and use of electrical systems or material. With the exceptions noted, the national electrical code is adopted in these rules by reference.

(2) Fine print notes contained within the body of the code are not adopted as a part of the code.

(3) All references to the ANSI/ASME A17.1 ~~2004~~**2008**, ~~S~~safety ~~C~~ode for ~~E~~levators and ~~E~~scalators means the Michigan ~~E~~levator ~~C~~ode and all references to the ~~N~~ational ~~E~~lectrical ~~C~~ode means the Michigan ~~E~~lectrical ~~C~~ode.

(4) NFPA 110, standard for emergency and standby power systems, 2005 edition and NFPA 111, standard on stored electrical energy emergency and standby power systems, 2005 edition, are adopted by reference in these rules.

(5) The codes ~~is~~**are** available for inspection at the Okemos office of the Michigan department of **energy**, labor ~~and~~ **&** economic growth, bureau of construction codes.

(6) The National Electrical Code, **NFPA 110, and NFPA 111** may be purchased from the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269, or from the Michigan Department of Energy, Labor and Economic Growth, Bureau of Construction Codes, 2501 Woodlake Circle, Okemos, Michigan 48864, at a cost as of the time of adoption of these rules of ~~\$72.50~~**\$75.00, \$34.50, and \$29.00 each, respectively.**

R 408.30813 Code arrangement.

Rule 813. Section 90.3 of the code is amended to read as follows:

90.3. Code arrangement. The code includes an administration section. Additionally, the code is divided into the introduction and 9 chapters. Chapters 1, 2, 3, and 4 apply generally; chapters 5, 6, and 7 apply to special occupancies, special equipment, or other special

conditions. Chapters 5, 6, and 7 supplement or modify the general rules. Chapters 1 to 4 apply except as amended by chapters 5, 6, and 7 for the particular conditions.

Chapter 8 covers communications systems and is not subject to the requirements of chapters 1 to 7 except where the requirements are specifically referenced in chapter 8.

Chapter 9 consists of tables **that are applicable as referenced**.

Annexes are not part of the requirements of the code but are included for informational purposes only.

R 408.30818 Permits and certificates.

Rule 818. Sections **80.19.1 of the code is amended and** ~~80.19.1~~, 80.19.2, 80.19.3, 80.19.4, 80.19.5, 80.19.6, 80.19.7, and 80.19.8 are added to the code to read as follows:

80.19. Permits and certificates. A person shall not equip a building with electrical conductors or equipment or make an alteration of, change in, or addition to, electrical conductors or equipment without receiving a written permit to do the work described. If the electrical installation or alterations of, changes in, or addition to, electrical conductors or equipment are found to be in compliance with the provision of the code and if the work has passed the inspection of the enforcing agency, then the enforcing agency shall, upon the request of the permit holder to whom the permit was issued, issue a certificate of final electrical inspection. The certificate certifies that the provisions of the code have been complied with. This section does not apply to installations that are referred to in section 7(3)(a), (b), (c), (d), (e), (f), (h), (k), (l), or (o) of 1956 PA 217, MCL 338.887.

80.19.1. To whom permits are issued. ~~(1) To obtain an electrical permit, an applicant shall be 1 of the following:~~

~~-(a) A holder of an electrical contractor license or the qualifying master for the electrical contractor when authorized by t.~~

~~03he electrical contractor to secure a permit.~~

~~-(b) A person, firm, or corporation holding an affidavit as provided by R 338.1039a.~~

~~-(c) A homeowner who occupies or will occupy a single family dwelling and other accessory structures located on the same lot intended for use by the homeowner for which the permit is obtained and who will install the electrical equipment as certified by the homeowner on the permit application in accordance with section 10(4) of 1972 PA 230, MCL 125.1510(4).~~

~~-(2) To obtain a permit for a fire alarm system, as defined in section 1a(1) of 1956 PA 217, MCL 338.881a (1), an applicant shall be 1 of the following:~~

~~-(a) A holder of an electrical contractor license.~~

~~-(b) A holder of a fire alarm specialty contractor license or the qualifying fire alarm specialty technician qualifying the fire alarm specialty contractor when authorized by the fire alarm specialty contractor to secure a permit.~~

~~-(c) A homeowner qualifying under section 80-19.1(1)(c) of the code.~~

~~-(3) To obtain a permit for an electrical sign or outline lighting, as defined in section 1b(1) and (2) of 1956 PA 217, MCL 338.881b(1) and (2), an applicant shall be 1 of the following:~~

~~-(a) A holder of an electrical contractor license.~~

~~-(b) A holder of a sign specialty contractor license or the sign specialty technician qualifying the sign specialty contractor when authorized by the sign specialty contractor to secure a permit.~~

~~-(c) A homeowner qualifying under section 80.19.1(1)(c) of the code.~~

~~-(4) To obtain a permit for electrical wiring associated with the installation, removal, alteration, or repair of a water well pump on a single-family dwelling to the first point of attachment in the house from the well, an applicant shall be 1 of the following:~~

~~-(a) A holder of an electrical contractor license.~~

~~-(b) A registered pump installer under part 127 of 1978 PA 368, MCL 333.12701 to 333.12771.~~

~~-(c) A homeowner qualifying under section 80.19.1(1)(c) of the code.~~

~~-(5) To obtain a permit for wiring associated with existing mechanical and plumbing systems referenced in section 7(3)(i) of 1956 PA 217, MCL 338.887(3)(i), a person shall be 1 of the following:~~

~~-(a) A holder of an electrical contractor license or the qualifying master for the electrical contractor when authorized by the electrical contractor to secure a permit.~~

~~-(b) A holder of a mechanical contractor license issued in accordance with section 6(3)(a), (b), (d), (e), and (f) of 1984 PA 192, MCL 338.976(3)(a), (b), (d), (e), and (f).~~

~~-(c) A holder of a plumbing contractor license issued in accordance with 2002 PA 733, MCL 338.3511 et seq. (1) A permit for any type of electrical installation may be secured by 1 of the following:~~

(a) A holder of an electrical contractor license or the qualifying master for the electrical contractor when authorized by the electrical contractor to secure a permit.

(b) A homeowner who occupies or will occupy a single-family dwelling and other accessory structures located on the same lot intended for use by the homeowner for which the permit is obtained and who will install the electrical equipment as certified by the homeowner on the permit application in accordance with the act.

(2) A permit for a fire alarm system may be secured by the holder of a fire alarm specialty contractor license or the qualifying fire alarm specialty technician qualifying the fire alarm specialty contractor when authorized by the fire alarm specialty contractor to secure a permit.

(3) A permit for an electrical sign or outline lighting, as defined in section 1b(1) and (2) of 1956 PA 217, MCL 338.881b(1) and (2), may be secured by the holder of a sign specialty contractor license or the sign specialty technician qualifying the sign specialty contractor when authorized by the sign specialty contractor to secure a permit.

(4) A permit for electrical wiring associated with the installation, removal, alteration, or repair of a water well pump on a single-family dwelling to the first point of attachment in the house from the well, may be secured by a registered pump installer under part 127 of 1978 PA 368, MCL 333.12701 to 333.12771.

(5) A permit for wiring associated with existing mechanical and plumbing systems referenced in section 7(3)(i) of 1956 PA 217, MCL 338.887(3)(i), may be secured by the following:

(a) A holder of a mechanical contractor license issued in accordance with section 6(3)(a), (b), (d), (e), and (f) of 1984 PA 192, MCL 338.976(3)(a), (b), (d), and (f).

(b) A holder of a plumbing contractor license issued in accordance with 2002 PA 733, MCL 338.3511 to 338.3569.

80.19.2. Application for permit. Each application for a permit, with the required fee, shall be filed with the code official on a form furnished for that purpose and shall contain a general description of the proposed work and its location. The permit application shall contain

all applicable information in accordance with the act and shall include the signature of the applicant in compliance with section 80.19.1 of the code.

80.19.3. Permit expiration. If work for which a permit is issued is not started within 6 months of the date of permit issuance or if work is abandoned for a period of 6 months, then the permit shall lapse and cease to be in effect.

80.19.4. Uncompleted installation notification. If a person to whom a permit is issued for the installation and inspection of electrical conductors and electrical equipment quits the installation for any reason, then the person shall notify the enforcing agency.

80.19.5. Inspection and refunds for partial installation. If an installation is partially completed, then a permit holder, upon quitting the installation, shall notify the enforcing agency and shall request an inspection. The inspector shall record the acceptance of, or violations against, the work installed on the permit record according to the findings of the inspector. The enforcing agency shall not grant a refund to the permit holder of the permit fee covering electrical equipment installed and inspected.

80.19.6. Owner notification to enforcing agency. If a permit holder quits an installation after the electrical equipment is installed and fails to notify the enforcing agency, then the building owner or his or her agent may notify the enforcing agency and request inspection. Upon inspection, the enforcing agency shall send the permit holder a notice of a violation. The owner may then secure another licensed contractor to proceed with the work if the new contractor is properly covered by a permit.

80.19.7. Transfer of permit. An electrical permit is not transferable.

80.19.8. Fraudulent application for permit. A permit that is issued in violation of the laws of this state or as a result of false or fraudulent information or misinterpretation of conditions is subject to revocation at the direction of the enforcing agency. The enforcing agency shall notify the person holding the permit to appear and show cause why the permit should not be revoked. Failure to appear is sufficient grounds for revocation of the permit.

R 408.30834 Maximum number of disconnects.

Rule 834. Section 230.71(A) of the code is amended to read as follows:

230.71(A). General. The service disconnecting means for each service permitted by section 230.2 of the code, or for each set of service-entrance conductors permitted by section 230.40, exception nos. 1, 2, 3, or 4, of the code, shall consist of not more than 6 switches or sets of circuit breakers, or a combination of not more than 6 switches and sets of circuit breakers, mounted in a single enclosure, in a group of separate enclosures, in a switchboard or on a switchboard. There shall be not more than 6 sets of disconnects per service grouped in any 1 location.

For the purpose of this section, disconnecting means **installed as part of listed equipment and used solely for the following** ~~power monitoring equipment, transient voltage surge suppressors, or the control circuit of the ground-fault protection system or power-operable service disconnecting means, installed as part of the listed equipment,~~ shall not be considered a service disconnecting means:

- (1) **Power monitoring equipment.**
- (2) **Surge-protective device or devices.**
- (3) **Control circuit of the ground-fault protection system.**
- (4) **Power-operable service disconnecting means.**

R 408.30835 Number of service-entrance conductor sets.

Rule 835. Section 230.40 of the code is amended to read as follows:

230.40. Number of Service-Entrance Conductor Sets. Each service drop or lateral shall supply 1 set of service-entrance conductors.

Exception 1: A building **with more than 1 occupancy shall be permitted to have** ~~may have~~ 1 set of service-entrance conductors for each service, as defined in section 230.2 of the code, run to each occupancy or group of occupancies.

Exception 2: Where 2 to 6 service disconnecting means in separate enclosures are grouped at 1 location and supply separate loads from 1 service drop or lateral, 1 set of service-entrance conductors may supply each or several such service equipment enclosures.

Exception 3: A 2-family dwelling or a multifamily dwelling may have 1 set of service-entrance conductors installed to supply the circuits covered in section 210.25 of the code.

Exception 4: One set of service-entrance conductors connected to the supply side of the normal service disconnecting means may supply each or several systems covered by section 230.82(4) or section 230.82(5) of the code.

R 408.30838 NFPA code; adoption by reference.

Rule 838. Sections 700.2 and 701.3 of the code are amended to read as follows:

700.2. Emergency systems. Emergency systems shall be installed in accordance with NFPA 100 and NFPA 111, 2005 editions, which are adopted by reference in these rules.

701.3. Legally required standby systems. Legally required standby systems shall be installed in accordance with NFPA 110 and NFPA 111, 2005 editions, which are adopted by reference in these rules.

R 408.30865 Unsupported raceways.

Rule 865. Section 342.30(C) of the code is amended to read as follows:

342.30(C). Unsupported raceways. Type IMC shall be permitted to be unsupported where the raceway is not more than 900 millimeters (36 inches) long and remains in unbroken lengths (without coupling). Such raceways shall terminate in an outlet box, junction box, device box, cabinet, or other termination at each end of the raceway.

R 408.30869 Grounding conductors.

Rule 869. Section 250.118 of the code is amended to read as follows:

250.118. Types of equipment grounding conductors. The equipment grounding conductor run with or enclosing the circuit conductors shall be 1 or more or a combination of the following:

(1) A copper, aluminum, or copper-clad aluminum conductor. This conductor shall be solid or stranded; insulated, covered, or bare; and, in the form of a wire or a busbar of any shape.

(2) Rigid metal conduit.

(3) Intermediate metal conduit.

(4) Electrical metallic tubing.

(5) Flexible metallic tubing where the tubing is terminated in **listed** fittings ~~listed for grounding~~ and meeting both of the following conditions:

(a) The circuit conductors contained in the tubing are protected by overcurrent devices rated at 20 amperes or less.

(b) The length of flexible metallic tubing in the ground return path does not exceed 1.8m (6 feet).

(6) Armor of type AC cable as provided in section 320.108 of the code.

(7) The copper sheath of mineral-insulated, metal-sheathed cable.

(8) Type MC cable where listed and identified for grounding in accordance with both of the following:

(a) The combined metallic sheath and grounding conductor of interlocked metal tape-type MC cable.

(b) The metallic sheath or the combined metallic sheath and grounding conductors of the smooth or corrugated tube type MC cable.

(9) Cable trays as permitted by sections 392.3(c) and 392.7 of the code.

(10) Cablebus framework as permitted by section 370.3 of the code.

(11) Other listed electrically continuous metal raceways and listed auxiliary gutters.

(12) Surface metal raceways listed for grounding.

R 408.30870 Unsupported raceways.

Rule 870. Section 344.30(C) of the code is amended to read as follows:

344.30(C). Unsupported raceways. Type RMC shall be permitted to be unsupported where the raceway is not more than 900 millimeters (36 inches) long and remains in unbroken lengths (without coupling). Such raceways shall terminate in an outlet box, junction box, device box, cabinet, or other termination at each end of the raceway.

R 408.30871 Unsupported raceways.

Rule 871. Section 352.30(C) of the code is amended to read as follows:

352.30(C). Unsupported raceways. Type PVC shall be permitted to be unsupported where the raceway is not more than 900 millimeters (36 inches) long and remains in unbroken lengths (without coupling). Such raceways shall terminate in an outlet box, junction box, device box, cabinet, or other termination at each end of the raceway.

R 408.30872 Unsupported raceways.

Rule 872. Section 355.30(C) of the code is amended to read as follows:

355.30(C). Unsupported raceways. Type RTRC shall be permitted to be unsupported where the raceway is not more than 900 millimeters (36 inches) long and remains in unbroken lengths (without coupling). Such raceways shall terminate in an outlet box, junction box, device box, cabinet, or other termination at each end of the raceway.

R 408.30880 Unsupported raceways.

Rule 880. Section 358.30(C) of the code is amended to read as follows:

358.30(C). Unsupported raceways. Type EMT shall be permitted to be unsupported where the raceway is not more than 900 millimeters (36 inches) long and remains in unbroken lengths (without coupling). Such raceways shall terminate in an outlet box, junction box, device box, cabinet, or other termination at each end of the raceway.