

CHAPTER 222
ELECTRICAL AND ELEVATOR CODES

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SUBCHAPTER 1
ELECTRICAL INSTALLATIONS

222-01. Adoption of State Code. Except as otherwise provided in this chapter, the city of Milwaukee adopts chs. Comm 16 and 18, Wis. Adm. Code, as amended, as part of this code.

222-02. Scope. The object and purpose of this chapter is to safeguard persons and property from hazards arising from the use of electrical energy by establishing minimum standards for the installation and maintenance of electrical systems. The standards do not constitute a specification for electrical installations and electrical equipment generally.

222-1. Regulations. 1. WHEN APPLICABLE. Except as regulated in sub. 2, the regulations of this chapter shall apply to the supply of electricity and to all sales, rentals, leases, uses, installations, alterations, repairs, removals, renewals, replacements, disturbances, connections, disconnections and maintenance of all electrical materials, wiring, conductors, fittings, devices, appliances, fixtures, signs, and apparatus, or parts thereof, or attachments therefor, hereafter referred to as electrical equipment, which are intended to be, or are, within, on, under, over, or near all buildings, structures, equipment and premises.

2. EXCEPTIONS. The electrical license and permit regulations of this chapter shall not apply to the following:

a. The installation, alteration or repair of electrical generation, transmission or distribution equipment, but not utilization equipment, owned and operated by an electrical public utility company or the city.

b. The installation, alteration or repair of signal or communication equipment where such equipment is owned and operated by a public utility company or the city.

c. Any work in ships, railway cars, buses, aircraft, automobiles, trailers and trailer houses.

d. Any work in connection with electrical equipment used for radio and television transmission, but not including supply wires to such equipment.

d. This subsection does not apply to self-insured companies, industries or governmental agencies approved by the commissioner and the city attorney, such as, but not limited to, the following:

d-1. Companies or industries regulated under ch. 196, Wis. Stats.

d-2. Agencies of the federal, state, county or municipal government.

222-13. Permits. 1. PERMIT REQUIRED. Except as regulated in s. 222-1-2 and subs. 4 and 5, no electrical equipment shall be installed, altered, renewed, replaced or connected without first procuring a permit.

2. APPLICATIONS FOR PERMIT.

a. Any holder of a Type C, Type M or Type E license desiring a permit as required by this chapter shall file with the commissioner of city development an application for such permit in writing on a form furnished for such purpose. Such application shall be signed by the supervising electrician of the applicant's business.

b. Such application shall describe and enumerate the electrical equipment to be installed and shall give other reasonable information as may be required by the commissioner of city development.

c. At the time of an issuance of a permit, the commissioner of city development may require the manufacturer, owner, installer or user of electrical equipment to submit plans (drawings), data, and specifications, schedules or literature, information, materials, samples or tests as may be necessary to determine the fitness of equipment for safe installation and use.

d. The approval of general building plans and specifications by the commissioner of city development shall not be considered as including electrical plans or specifications or electrical equipment.

3. ISSUANCE OF PERMIT. a. If upon examination it is found that the information on the application is complete, the commissioner of city development shall issue a permit; provided that the licensee agrees and expressly states that he is fully capable, and in possession of knowledge and ability to design, lay out, install, alter or replace the work designated in the application in accordance

with this chapter, and with all other laws and ordinances pertinent thereto, and will install electrical equipment as described in the application for permit in a safe, legal and workmanlike manner.

b. The issuance of any permit or the serving of any notice or order shall not preclude compliance with all ordinances or other laws relating to occupancy and use, construction (s. 200-26) or zoning (ch. 295).

c. No other electrical work shall be done except work as described in the application for permit.

4. ONE OR 2 - FAMILY RESIDENTIAL AFFIDAVIT APPLICATION. a. The department of city development may allow any Type C licensed electrical contractor to submit a residential affidavit application. The application shall contain the signature of the supervising electrician certifying that the covered repair, replacement fished or exposed installation of electrical equipment conforms to all existing state and local laws, ordinances and regulations and that all work described on the application has been completed and performed in a safe, legal and workmanlike manner.

b. The residential affidavit application shall allow a Type C licensed electrical contractor to perform any 2 of the following repairs, replacements or installations at any one address in a 12-month period:

b-1. Outlet for fixture, lamp, switch or receptacle.

b-2. Fixture replacement (total maximum of 5).

b-4. Motor, including disconnecting means (furnace, exhaust fan, etc.).

b-5. Water heater.

b-6. Dryer or dryer outlet.

b-7. Air conditioner, including disconnecting means or air conditioner outlet.

b-8. Range or range outlet.

b-9. Garbage disposal, including disconnecting means.

b-10. Dishwasher, including disconnecting means.

5. LOW VOLTAGE AFFIDAVIT APPLICATION. a. The department of city development may allow any Type C licensed electrical contractor to submit an affidavit application. The application shall contain a signed statement by the supervising electrician certifying that the installation of electrical equipment conforms to all existing state and

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local laws, ordinances and regulations, and that all work described on the application has been completed and performed in a safe, legal and workman-like manner.

b. For systems of less than 120 volt nominal, the following tables shall apply:

**NON-RESIDENTIAL,
LESS THAN 120 VOLT NOMINAL**

<u>Type of System</u>	<u>Permit</u>	<u>Affidavit*</u>
Machine control	X	
Permanent lighting	X	
Permanent receptacle	X	
Pathway lighting, hard-wired transformer	X	
Solar photo voltaic system	X	
Fire alarm with optionals	X	
Smoke detector	X	
Sprinkler alarm	X	
Intercom system, hard-wired		X
Burglar alarm, hard-wired		X
Security system, hard-wired transformer		X
Energy management system	X	
A.D.A. requirements	X	
Emergency lighting	X	

* Affidavit by licensed electrical contractor (see par. a.)

**MULTI-FAMILY RESIDENTIAL
(3 OR MORE UNITS),
LESS THAN 120 VOLT NOMINAL**

<u>Type of System</u>	<u>Permit</u>	<u>Affidavit*</u>
Permanent lighting	X	
Hard-wired transformer, primary-secondary	X	
Pathway lighting, hard-wired transformer	X	
Solar photo voltaic system	X	
Fire alarm with optionals	X	
Smoke detector	X	
Sprinkler alarm	X	
Intercom system, hard-wired		X
Burglar alarm, hard-wired		X
Security system, hard-wired transformer		X
Energy management system	X	
A.D.A. requirements	X	
Emergency lighting	X	

* Affidavit by licensed electrical contractor (see par. a.)

6. WORK WITHOUT PERMIT. When any work is begun on the installation, alteration, or replacement of any electrical

equipment without first obtaining a permit therefor, except as provided in sub. 4, the commissioner shall have the power and authority to disconnect or order the disconnection immediately of any such equipment and to stop such work until a permit has been procured.

7. NO PERMITS TO VIOLATORS.

a. Whenever any electrical installation occurs contrary to the regulations of this chapter, the commissioner shall issue a notice to remedy the defective work to the violator at his or her last known address. Failure to comply with the notice shall be deemed sufficient reason for withholding future permits, in addition to other penalties provided in this code.

b. The following shall also be deemed sufficient reasons for withholding future permits:

b-1. An unreasonable delay in the performance of electrical work occurs after issuance of a permit.

b-2. An electrical contractor fails to promptly respond to official communication from the commissioner.

8. EXPIRATION OF PERMITS.

If any electrical work for which a permit has been issued is not started within 6 months from the date of issuance of the permit, or if any electrical work for which a permit has been issued ceases for more than 6 months, such permit shall lapse and be void, and all permit fees shall remain the property of the city. No electrical work shall begin or be resumed until a new electrical permit is obtained and the fees prescribed in s. 200-33 are paid therefor.

222-15. Installation Standards. 1. The commissioner of city development may grant special permission, for a limited period of time, for the installation or use of temporary electrical wiring and equipment which do not conform with the regulations of this chapter. The electrical contractor installing such wiring or equipment shall be directly and legally responsible and accountable for the safe condition of the installation at all times, and its complete removal at the end of the fixed temporary period, as set forth by the commissioner of city development or any time sooner when ordered by the commissioner of city development. Carnivals, circuses, theatrical acts, and exhibitions and all places of temporary outdoor assembly are included in the

provisions of this subsection, and all electrical wiring and equipment associated therewith shall be installed, maintained, and operated in a safe and workmanlike manner. All such electric wiring and equipment shall be isolated from the public by proper elevation and guarding and all electric fuses and switches shall be installed in approved enclosures. Cable laid on the ground in areas traversed by the public shall be buried in trenches or protected by approved covers.

2. The wiring in electrically operated machinery, appliances, devices, and similar equipment, and the wiring in display counters, showcases, backbars, booths, and similar fixtures shall not be required to conform to the wiring regulations for buildings, but shall be subject to the approval or disapproval of the commissioner of city development as regulated in ss. 222-17 to 222-19.

3. Existing electrical equipment which does not conform to the regulations of this chapter, but which was lawfully installed prior to the passage of this chapter, may be continued in use if maintained in a safe condition.

4. When any additions, alterations, or renewals of existing electrical equipment lawfully installed prior to the adoption of this chapter are made, such portion of the installation which is added, altered or renewed shall conform to the regulations of this chapter.

5. Any change in the occupancy or use of an existing building, structure or premises shall not require a change in the existing electric equipment, provided such change does not create an electric hazard.

222-16. Connections to Installations. It shall be unlawful for any person to make any connection from any source or supply of electricity, or to supply electricity to any electrical equipment for which a permit is required, or which has been disconnected or ordered disconnected by the commissioner, until a certificate of authorization has been issued by the commissioner of city development authorizing the connection and use of such equipment.

222-17. Approval of Electrical Equipment. 1. It shall be unlawful for any person to sell, install or use any type or kind of electrical equipment which has not been approved.

2. The sale, rental, installation or repair of electrical equipment shall by implication warrant that the manufacturer, seller, installer, repairer or person receiving payment for rental therefor, guarantees that such electrical equipment is of merchantable quality and not defective to the extent that it will be dangerous to persons or property when put to the use for which it was designed.

3. It shall be the policy of the commissioner of city development to approve, subject to the regulations of this chapter, any type or kind of electrical equipment which has been approved by the National Bureau of Standards or any nationally recognized testing laboratory or the state of Wisconsin.

4. A list or record of all such approved electrical equipment shall be kept in the office of the commissioner of city development and shall be accessible to the public during regular office hours.

222-18. Installation of Electrical Equipment.

Except as otherwise regulated in this chapter, all electrical equipment which has been expressly made for electrical purposes shall be installed or used in the exact manner and for the exact purpose indicated by the manufacturer's instruction, markings or labels. Old or secondhand electrical equipment shall not be installed unless such equipment is in a safe condition and approved. Approved electrical equipment and the original manufacturer's ratings, markings or labels thereon shall not be changed or altered in any manner, except that normal replacements and repairs may be made to such equipment if the replacements and repairs do not change the original characteristics or design.

222-19. Unsafe or Illegal Electrical Equipment.

1. When the commissioner finds any electrical equipment to be unsafe or dangerous to persons or property, the person owning or using such electrical equipment may be issued an order in writing by the commissioner to remove or cause to be removed or to make any changes or repairs as determined by the commissioner so as to restore the electrical equipment to a safe condition. Failure to comply with the order within the time specified in such notice shall be sufficient cause for the commissioner to disconnect or order the removal of, or order the discontinuance of electrical service to the