

CHAPTER 5

Electrical Code

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5.01 OBJECT AND PURPOSE. The object and purpose of this electrical code 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. Compliance with these standards is intended to result in installations reasonably free from electrical hazards. The standards merely prescribe and establish a reasonable minimum and do not constitute a specification for electrical installations and electrical equipment.

5.02 ADMINISTRATION.

- (1) **Department of Electrical Inspection.** There is created the Department of Electrical Inspection, which shall be under the supervision of the Village Administrator. An Electrical Inspector, appointed by the Village Board, shall act as head of this department, performing such inspection and other duties as are required. The Electrical Inspector shall have the general management and control of all matters pertaining to electrical inspection and shall enforce this code. Where requirements of various laws and regulations and the provisions of this code conflict, the stricter requirements shall govern.
- (2) **Electrical Inspector.** The Electrical Inspector shall have the following qualifications:
 - (a) He shall be of good moral character.
 - (b) He shall be a competent electrician.
 - (c) He shall be well-versed in approved methods of electrical construction for safety of life and property, the statutes of Wisconsin relating to electrical work, the rules and regulations issued by the Wisconsin Department of Labor, Industry, and Human Relations, and the National Electric Code of the National Fire Protective Association.
 - (d)
 1. He shall have had at least two (2) years experience as a journeyman in the practice of his trade and two (2) years of training in a recognized college of electrical engineering; or
 2. He shall have had at least five (5) years experience as a master electrician or electrical contractor in the business of supervising the installation of electrical wires, apparatus, and equipment; or

3. He shall have had at least that experience and training which is equivalent to the stated in subparagraphs 1 and 2.
- (3) **Examining Committee.** There shall be appointed an Examining Committee, which shall consist of the Electrical Inspector and two (2) members who shall be named by the Electrical Inspector subject to the approval of the Village Board. Whenever practicable, the two (2) said members shall have a practical knowledge of electricity. Two members, the Electrical Inspector, and a committee member shall constitute a quorum for the transaction of business.

5.03 LICENSE FOR ELECTRICIANS.

- (1) **Required.** No person shall install, alter, repair, remove, connect, disconnect any electrical wiring fixtures or apparatus for any purpose in the Village without first having procured a license therefore as herein provided; except any person who is performing such work as a bona fide employee of and for the holder of a license. The electrical inspector shall periodically research the roster of licensees to determine that all electrical work performed within the Village is under the supervision of a qualified electrician.
- (2) **Fees.** The initial fee for such license shall be \$60.00 for one year. For each yearly renewal of such license, a fee of \$40.00 shall be paid. All such licenses shall be issued for one year commencing July 1 and expiring on June 30 of each year following their issuance, unless sooner revoked. If any license shall not be renewed on or before July 1 of each year, such license shall be considered as having lapsed and the renewal fee therefore shall be \$60.00. The Electrical Inspector shall not be under any obligation to notify any licensee regarding the termination of date of the license held.

Fees for all licenses shall be paid to the Village Treasurer and no license shall be issued or held valid unless signed by the Electrical Inspector and stamped as paid by the Village Treasurer in the amount required by such license.

- (3) **Application.** Application for a license shall be made to the Electrical Inspector on forms furnished by him. All applications for license shall be referred by the Electrical Inspector to the Examining Committee, who shall promptly investigate and report to the Electrical Inspector as to the fitness of the respective applicants for the license. All applicants shall have had at least six (6) years practical experience in electrical work; except that if any applicant has attended an accredited electrical school, he shall have full credit given to him toward the six (6) year practical experience requirement for each full year he has attended such accredited electrical school to a maximum of three (3) years practical experience.
- (4) **Examinations.** The Committee shall meet as often as necessary for the consideration of such applications, an regular examinations shall be held during August, but special examinations may be held at any time selected by the Committee.

Any person successfully passing the examination of the Examining Committee shall be issued a master electrician's certificate to that effect and he may thereafter be granted a license upon the payment of proper fee. Such master electrician's certificate shall be good for a period of five (5) years, and may within 30 days after expiration, thereafter be renewed for a like period without having to take another examination, within the discretion of the Examining Committee.

- (5) **Plant Electrician.** A license fee of \$15.00 each calendar year shall be charged for any person who regularly employs a competent electrician to do the maintenance work in his plant, but in no case shall such electrician be permitted to engage in the installation of any electrical wiring, fixtures, or apparatus outside of that solely in connection with such plant. Such license may be granted to individuals only, so that when the licensed electrician leaves that employ of such person, a new license will be required for the new employee performing such services.

Any new employee hired to do maintenance work in any plant shall make application to the Electrical Inspector for a temporary license. If the Electrical Inspector shall consider such applicant qualified, he may grant him permission to do such maintenance work only until the next examinations are held, at which time such new employee shall take the examination prescribed by the Examining Committee. If such employee passes said examination, he shall be issued a permanent license; and if he shall not pass such examination, his temporary license shall be revoked and no license shall be granted to him, in which case the person so hiring said electrician may hire some other employee who is capable.

- (6) **Revocation.** The Examining Committee may investigate any charge which may be brought against the holder of a license and may revoke any such license for violation or for noncompliance with this Chapter by the licensee, or any person performing work under the direction of the licensee.

When a license is revoked, no license shall again be granted to the same licensee for at least 30 days. After 30 days have expired the licensee may make application for reinstatement by filing a request therefore with the Electrical Inspector. The Electrical Inspector shall submit the application for reinstatement to the Examining Committee. Should the Examining Committee refuse reinstatement of the license, the licensee shall not be permitted to make application for reinstatement for a period of six (6) months from the date of last petition. Any licensee petitioning for reinstatement may demand a hearing and the Committee shall meet and hear the licensee within 60 days from the date of the petition. The reinstatement fee for such license shall be \$20.00.

- (7) **Inspector and Committee Members not Liable.** If any action is taken by the Electrical Inspector or by any member of the Examining Committee to enforce this Chapter such action or act shall be considered as done in the name of and on behalf of the Village, and the Electrical Inspector or any member of the Examining Committee in so acting for the Village shall not be liable for any damage that may accrue to any person or persons or property as a result of any such action or act committed in the discharge of their duties, and any lawsuit or action brought against said Electrical Inspector or members of said Committee by reason thereof, shall be defended by the Village Attorney until termination of the proceedings contained therein.

5.04 PERMITS.

- (1) **Required.**
- (a) No electrical equipment shall be installed, altered, renewed, replaced, or connected without first procuring a permit therefore. A permit shall be required for the repair, removal, or disconnection of any existing branch lighting circuit

switches, sockets, or receptacles, and any such electrical work shall only be done by a qualified person under this Code.

- (b) Before overhauling existing installations, or replacing work condemned by the Electrical Inspector, a permit shall be procured. Fees provided for “new work” under this Code shall apply to all repairs or replacements made as a result of condemnation by the Electrical Inspector.

(2) **Temporary Permits.**

- (a) For buildings where conduit wiring is required, special permits for temporary work may be granted by the Inspector for the installation of open work and exposed wiring, lights, power for building operations, display, decorative lighting, etc., for use for a period not to exceed six (6) months subject to discontinuance and complete removal at expiration and to condemnation and revocation within such period.
- (b) On applying for permit for temporary work, a specified period of time which such wiring is to remain in service must be stated. Service shall be cut off at the end of this period and shall not again be connected without a written permission from the Electrical Inspector.

(3) **Exceptions.**

- (a) Any person manufacturing electrical appliances, employing a competent electrical, shall not be required to have a permit for his testing equipment.
- (b) In emergency work, the person doing such work shall report same to the Electrical Inspector within two (2) days after beginning work and such work shall be done in accordance with this Chapter.

- (4) **Application; Issuance.** The Electrical Inspector shall issue permits for the execution of electrical installation for light, heat, or power upon the filing of proper applications, which shall be made on blanks furnished by the Electrical Inspector prescribing the nature of the work, and no work shall be done until a permit has been obtained.

No permit shall be issued until all fees have been paid and all orders of the Electrical Inspector complied with. No permit shall be issued unless the permit shall list all electrical work to be installed. In event electrical work is commenced prior to the issuance of a permit, a double fee shall be required for such work.

5.05 PERMIT FEES.

- (1) Permit fees for Electrical Installation shall be:

<u>Description</u>	<u>Fee</u>
1. Light Switch, Light Fixtures, & Convenience Outlets	\$.70 each
2. Light Fixture and Florescent Tube	\$.60 each
3. Mercury, HPS, LPS, Metal Halide Fixtures	\$ 3.00 each
4. Range & Clothes Dryer	\$ 8.00 each
5. Garbage Disposal & Dishwasher	\$ 7.00 each
6. Water Heaters, Gas & Oil Burners	\$ 11.00 each
7. Refrigerating & Air Conditions - .25 per HP	\$ 11.00 min
8. Feeders – No. 4 A.W.G. or larger	\$ 14.00 each
9. Temporary Service (How Long?)	\$ 25.00 each
10. Service Conductors & Switch	

	a)	0 through 400 amps	\$ 25.00 each
	b)	401 through 1,000 amps	\$ 35.00 each
	c)	each 1,000 amps added	\$ 35.00 each
11.		Ventilation Fans/Exhaust	\$ 5.00 each
12.		Motors over ¼ HP	\$ 1.00 per HP
13.		Fuel Dispensing Pumps	\$ 10.00 each
14.		Transformers, Rectifiers, & Generators	\$.50 per KW
15.		Space Heating Systems – per circuit	\$ 5.00 each
16.		Misc. Heating Devices	\$ 6.00 each
17.		Dimmers – 1,000 Watts or more	\$ 4.00 each
18.		Power Receptacles – 230 volts or over	\$ 8.00 each
19.		Wireways, Busways, Raceways, or Gutters	\$.40 per ft.
20.		Strip Lights, Plug-in Strip, or Trol-E-Duct	\$.50 per ft.
21.		X-ray Machines & Motion Picture Machines	\$ 80.00 each
22.		Signs	\$ 20.00 each
23.		Swimming Pools	
	a)	In-ground	\$ 40.00 each
	b)	Above-ground	\$ 25.00 each
24.		Hot Tubs/Spas	\$ 60.00 each
25.		Re-inspection /Special Inspection	\$ 35.00 each
26.		Minimum Fee for Permit	\$ 60.00

5.06 INSPECTION

- (1) **Upon Completion.** Upon Completion of the wiring in or on any premises and before any wiring is to be hidden from view, the person doing the work shall notify the Electrical Inspector and the Inspector shall inspect the installation within 24 hours of the time such notice is received. If, upon inspection, it is found that the installation is in compliance with this Code and does not constitute a hazard to life or property, he shall approve the same and authorize concealment of the wiring, or authorize connection for electrical service. If the installation is incomplete or not strictly in accordance with this Code, he shall issue orders to the person installing the same to remove all hazards and make the necessary changes or additions within seven (7) days. No person shall conceal any electrical work before inspection. If this subsection is violated, the Electrical Inspector has authority to order removal of any materials which conceal the electrical work from inspection and may, at his option, require all trades to cease further construction until there has been compliance with such order.
- (2) **Turning On Current.** Current shall not be turned on any electrical wiring until a certificate of inspection has been issued by the Electrical Inspector; provided, however, that in occupied buildings, where a permit for lighting fixtures has been issued, the Electrical Inspector may authorized the installation of meters for electric service after the wiring has been inspected and approved.
- (3) **Turning Off Current.** The Electrical Inspector shall cut off the electrical current from any equipment which is found in his judgment to be in an unsafe condition, and no person shall reconnect any equipment thus cut off until written permission is given by the Electrical Inspector.
- (4) **Additional Inspections.** Where additional inspections are made necessary by reason of neglect to make connections work, found faulty or defective at the expiration of the time

limit set for re-inspection as specified in notice duly served, inspection fee shall be \$50.00 for each re-inspection.

- (5) **Inspection where Plant Electrician Employed.** Any person using electricity for light, heat, or power and regularly employing an electrician to give his attention to the electric equipment, shall have his electrical installation inspected semi-annually, and shall pay fees as provided in Section 5.05.

A record shall be kept of all new installation and permanent alterations made during the period from one (1) periodical inspection to the next and shall be submitted to the Electrical Inspector whenever periodical.

- 5.07 RIGHT OF ENTRY.** If the Electrical Inspector or his assistants have the knowledge or belief that a violation of this Code exists, he shall have the right to enter any building, premises, or subway in the discharge of his official duties, and for that purpose shall be given prompt access on reasonable notification to the proper authority.

5.08 INSTALLATION STANDARDS.

- (1) Except as otherwise provided in this Chapter, all electrical methods, materials, and applications shall conform to and comply with the Fire Code of the Village and the National Electrical Code of the National Fire Protective Association edition in force by the State of Wisconsin at the date of issuance of the permit. Installation, alteration, replacements, and repairs of electrical equipment used for light, heat, or power shall be installed in a workable and workman-like manner in conformity with the regulations of this Chapter.
- (a) Wiring Installations – Commercial. Electrical wires for light, heat, or power shall be installed in rigid steel conduit, electrical metallic steel tubing, or approved plastic conduit in all commercial buildings hereafter built or remodeled, except residences containing not more than two (2) living units. Concealed wiring may be installed in armored cable.
- (b) Exception. Wood Frame Multi Family construction may be installed in non-metallic shielded cable in conformance with the Wisconsin State Electrical Code, Volume 2 ch ILHR 16, of the Department.
- (2) The Electrical Inspector may grant special permission, for a limited period of time, for the installation or use of temporary electric wiring and equipment which does not conform with the regulations of this Chapter. The person 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 by the Electrical Inspector, or any time sooner when ordered by the Electrical Inspector. Carnivals, circuses, theatrical acts, and exhibitions and all places of temporary outdoor assembly are included in the provision of this subsection and all electric 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 area traversed by the public shall be buried in trenches or protected by approved covers.
- (3) **Prefabricated Buildings.** Pre-wired buildings or parts of buildings where the finish of the wiring therein has been installed in a manner or at such point in construction as to

preclude the inspection by observation of any portion of the electrical system, without inspection as herein provided, are in violation of this electrical code.

The rules and regulations issued by the Wisconsin Department of Labor, Industry, and Human Relations and the National Electrical Code of the National Fire Protective Association shall apply to prefabricated construction.

Where the said buildings or parts of buildings conform with the requirements of all other ordinances, compliance with the electrical code can be acquired in the following manner:

- (a) The Village Electrical Inspector can make the inspection at the factory. All costs of time and transportation by a mutually acceptable means shall be paid by the owner or manufacturer; or
- (b) The finish of all walls may be installed after inspection at this site of erection; or
- (c) All wiring may be “fished in” at the site of erection.

5.09 SALE OF ILLEGAL EQUIPMENT. No person shall keep or offer for sale or sell, for use within the Village, any apparatus, equipment, or fixtures, designed or intended to be used for the production, transmission, or utilization of electrical current or power, if said apparatus, equipment, or fixtures, when installed for use, would be in violation of this Chapter or would be unsafe or dangerous.

5.10 DUTIES OF ELECTRICAL INSPECTOR. The Electrical Inspector shall enforce this Chapter. A record shall be kept of all official work; said record shall be so arranged as to afford prompt information concerning electrical equipment.

5.11 FORCE AND EFFECT. Existing electrical equipment which does not conform to the regulations of this Code may be continued in use if maintained in a safe condition.

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

Any change in the occupancy or use of an existing building, structure, or premises for which an occupancy permit is required shall require that an electrical inspection be made prior to the issuance of occupancy permit.

All violators will at that time be corrected to the satisfaction of the Electrical Inspector except that he may accept such existing items of electrical work which were installed according to code and under permit at the time of installation and which he shall not consider as a hazard to public safety.

5.12 PENALTY. Any person who shall violate any provision of this Chapter or order, rule, or regulation issued hereunder shall be subject to a penalty as provided in §19.04 of this Village Code.