

# CHAPTER 158

## ELECTRICAL CODE

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**158.01 ADOPTION OF NATIONAL ELECTRICAL CODE.** This chapter shall consist of the “National Electrical Code, 2017 Edition,” as published by the National Fire Protection Association, which volume is incorporated herein by reference as fully as though set forth herein in its entirety excepting only such portions as are herein stated to be deleted there from; and such additional provisions as are hereafter set forth. This chapter and all provisions incorporated herein by reference or otherwise, shall be known as the “*Altoona Electrical code*” may be cited as such, and will be referred to herein as such and as “*this code*”.

### **158.02 DELETIONS.**

**158.03 AMENDMENTS AND ADDITIONS.** The remaining sections in this chapter are and represent amendments and additions to the requirements contained in the National Electrical Code (*hereinafter known as the NEC*) and where they conflict with those of the National Electrical Code, the requirements of this chapter shall prevail.

**BRANCH CIRCUIT EXTENSIONS OR MODIFICATIONS.** Section 210.12 (D) shall be deleted.

**ARC-FAULT CIRCUIT-INTERRUPTER PROTECTION.** Section 406.4(D) (4) shall be deleted.

**DEFINITIONS.** Article 680.2 NEC shall amend the following definitions:

1. Permanently Installed Swimming, Wading, Immersion and Therapeutic Pools
2. Storable Swimming, Wading, or Immersion Pools.

By deleting “(42 in.)” from each definition and replacing with “(24 in.)”

### **158.04 MOVED BUILDINGS, CHANGES OF USE/OCCUPANCY, AND ALTERATIONS/REPAIRS.**

1. Buildings or structures moved into or within the City shall comply with the provisions of this code for new buildings or structures.
2. If the classification of a building has been changed due to a change in occupancy, the wiring in the entire building shall comply with all the electrical standards applicable to the new classification. If the occupancy of a building has been changed to a mixed occupancy, with the required fire separation between the mixed occupancy, each occupancy shall comply with its own particular classification and shall be wired in compliance with the electrical standards of its particular classification.
3. Additions to, alterations of, and repairs to existing electrical equipment shall comply with the electrical code. Furthermore, existing electrical equipment that is temporarily exposed or made accessible because of any remodeling or repair of an existing structure, shall be made to comply with the electrical code. In any event, the building official may, when any additions, alterations, or repairs are made, order other reasonable additions or alterations in the electrical equipment of a structure or on any premises when a danger to life or property may result if such other additions or alterations were not made.

**158.05 DEPARTMENT OF ELECTRICAL INSPECTION.** There is hereby established in the City the Department of Electrical Inspections, which shall be under the direction and supervision of the Building and Zoning Official. The Building Official shall be responsible to the Community **Development** Director for the enforcement of the Building Codes, and such other ordinances as shall assign the Building Official that function, and shall perform such other duties as may be required by the Community **Development** Director or by any classification plan adopted by the City. Additional responsibilities of the Building Official shall be assigned as required per Chapter 155 of the City of Altoona, Code of Ordinances.

**158.06 POWERS AND DUTIES OF ELECTRICAL INSPECTORS.**

1. The Building Official shall have the authority to cause the disconnection of any wiring or equipment if it is dangerous to life or property or may interfere with the work of the Fire Department. He or she shall perform other duties as may be required by the Community Services Director or by any classification plan adopted by the City.
2. The Building Official or designated appointee has reasonable cause to believe that there exists in a structure or upon a premises a condition which is contrary to or in violation of this code which makes the structure or premises unsafe, dangerous or hazardous, the Building Official or designee is authorized to enter the structure or premises at reasonable times to inspect or to perform the duties imposed by this code, provided that if such structure or premises be occupied that credentials be presented to the occupant and entry requested. If such structure or premises be unoccupied, the Building Official shall make reasonable effort to locate the owner or other person having charge or control of the structure or premises and request entry. If entry is refused, the Building Official shall have recourse to the remedies provided by law to secure entry.
3. The Building Official or designated appointee is hereby authorized, directed, and empowered to inspect all electrical installations within the City, to condemn and order removed or remodeled and put in proper and safe condition for the prevention of fire and the safety of life, all electrical heating and lighting apparatus, power generators, motors, machinery, fixtures and connections, electrical equipment used in the supply, distribution,

or utilization of electrical current for light heat, or power purposed and to control the disposition and arrangements of the same so that persons and property shall not be in danger therefrom.

4. The Building Official shall administer and enforce the provisions of this chapter. He or she shall keep records of each ruling or determination made under its provisions, and notify in writing all persons involved. He or she shall keep complete records of all permits issued, inspections made, and other official work performed in accordance with the provisions of this chapter.

5. The Building Official and his or her assistants shall not engage in the business of the sale, installation, or maintenance of electrical equipment either directly or indirectly, and they shall have no financial interest in any firm engaged in such business in the City at any time while holding office.

#### **158.07 LIABILITY FOR DAMAGES.**

1. The City or any employee of the City is not liable for damages to a person or property as a result of any act or failure to act in the enforcement of this code, unless the act of enforcement constitutes false arrest.

2. This code shall not be construed to relieve from or lessen the responsibility of any person owning, operating or controlling any equipment or structure regulated herein for damages to a person or property caused by its defects nor shall the City or any City employee be held as assuming any such liability by reason of the inspections authorized by this code or any approvals issued under this code.

#### **158.08 PERMITS NOT REQUIRED.** The following items do not require a permit:

1. Replacement of lighting fixtures, receptacles, switches, overcurrent protection devices of the same volt and amperage.

2. The repair or replacement of flexible cords of same volt and amperage.

3. The process of manufacturing, testing, servicing, or repairing of electrical equipment or apparatus.

4. Minor repair and adjustment where the total cost of the work does not exceed \$100.00.

5. No permit or inspections are required for electrical wiring of 50 volts or less.

#### **158.09 PERMIT ISSUANCE.**

1. Permits are not transferable. Electrical work performed under the provisions of this chapter must be done by a contractor meeting the licensing provisions as set forth by the Iowa Electrical Examining Board in accordance with Iowa Code Chapter 103 unless the provisions of Section 155.13 or 158.15 of the Municipal Code are met. An electrician licensed by the State of Iowa Electrical Examining board as a "Master A or B" may sign and obtain a permit for the contractor for which they are employed only when said "Master A or B" has provided proof of employment by said licensed contractor. Any permit required by the provisions of this code may be revoked by the Building Official upon the violation of any provision of this code.

2. A State of Iowa licensed Electrical contractor shall be allowed only to secure permits for himself or herself, or for a single firm or corporation. When a State of Iowa licensed Electrical contractor has secured such a permit, only the employees of such contractor when meeting the provisions of Iowa Code Chapter 103 shall perform the work for which the permit was obtained.

3. For purposes of this section, an “employee” shall be one employed by the contractor, firm or corporation for a wage or salary. A contractor may be required by the Building Official to show positive evidence as to the employee status of workers on the job. Such evidence shall be in the form of payroll and time records, canceled checks, or other such documents.

4. The contractor may also be required to show the agreement or contract pertaining to the work being questioned as evidence that said contractor is, in fact, the actual contractor for such work. Failure or refusal by the contractor to make available such employee or contractual records within 24 hours from demand therefor shall be grounds for immediate revocation of any permit for the work in question.

#### **158.10 PERMIT FEES.**

1. Permit Fees:

A. A fee for each electrical permit shall be paid to the building official in the amount set in the Schedule of Fees adopted by the City Council. No electrical permits shall be issued to any person who has fees outstanding as required by this code or any other laws or ordinances of the City. Fees for repairs to items listed shall be the same as for new construction. Any permit required by the provisions of this code may be revoked by the Building Official upon the violation of any provision of this code.

B. If a permit is issued for a specific amount of work and, upon inspection, it is determined that more work was performed than was authorized by the permit, the permittee shall amend the permit or obtain another permit to include all additional work and shall pay a new base fee and any unit fees as described in paragraph A above.

2. Additional permit fees are as follows:

A. Double Fee. Except in emergency situations, as determined by the Building Official, where work for which a electrical permit is required by this code is started or proceeded with by any person prior to obtaining a required permit, the fees specified as set forth in the amount set in the Schedule of Fees as adopted by the City Council shall be doubled. The payment of such double fee shall not relieve any person from fully complying with the requirements of this code in the execution of the work or from any other penalties prescribed herein. No additional permits of any type shall be issued to any person who owes the City the double fee described in this subsection. However, no double fee shall be imposed upon any person who starts without a permit if:

- (1) The work is started on a Saturday, Sunday, or holiday, or during any other day when the Building Department is not normally open for business; and
- (2) The person secures the proper permit on the next Building Department working day.
- (3) No plan review is required prior to issuance of the permit.

B. Refunds. If, within 30 days of the date of issuance, the holder of a electrical permit decides not to commence the work described in said permit, said person may, upon application to the Building Official, be refunded that portion of the permit fee which is in excess of the permit refund fee set in the schedule of fees adopted by the City Council.

C. Fees for Permit Renewals as stated in Section 158.11 shall be based on the amount of remaining work to be completed. If the plans are changed enough to warrant a review then the permit fee shall be ½ the cost of the original fee plus any fees as set forth in subsection E of this code section.

\* Or the hourly cost to the jurisdiction, whichever is greater. This cost shall include supervision, overhead, hourly wages, and fringe benefits of the employees involved.

D. Reinspections. A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called is not complete or when corrections called for are not made. This section is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this code, but as controlling the practice of calling for inspections before the job is ready for such inspection or reinspection. Reinspection fees may be assessed when the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, or for deviating from plans requiring the approval of the building official. To obtain a reinspection, the applicant shall pay the reinspection fee in accordance with the schedule of fees as adopted by City Council. In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid.

E. Other Inspections and Fees: See the schedule of fees as adopted by City Council.

Persons performing work for the Federal Government, the State, the county or city may obtain permits for such work without paying the permit fees described herein; provided, however, that nothing in this section shall be construed to exempt payment of permit fees by persons performing work under the direction of the City in connection with the abatement of any public law.

An expired permit may not be reissued without a permit fee except by resolution of the City Council.

**158.11 EXPIRATION.** Every permit, issued by the building official under the provision of the electrical code shall expire under any one of the following conditions:

1. Failure to begin work authorized within 180 days after issuance of the permit.
2. Suspension or abandonment of work for 120 days after commencement of the work. Time of occurrence of suspension or abandonment of work shall be computed from the date of the most recent inspection since which no progress has been made.
3. Failure to complete work on a structure designed for residential uses within one year after issuance of a permit.
4. Failure to complete work on a structure designed for commercial or industrial uses within two years after issuance of a permit. For permits with a building valuation exceeding \$10,000,000.00 work shall be completed within three years after issuance of a permit.

Any permittee holding an unexpired permit may apply for an extension of the time within which he or she may commence or continue work. The building official is authorized to grant, in writing, for periods not more than 180 days each, two extensions. The extension shall be requested in writing and justifiable cause demonstrated. Any of the extensions may be further extended by action of the City Council. In all cases, when a renewal is granted the structure for which the permit is required shall comply with code requirements in effect at the time the permit is renewed.

**158.12 LICENSING FOR ELECTRICAL, PLUMBING, AND MECHANICAL CONTRACTORS AND INSTALLERS.** The provisions of ordinance Chapter 160 of the City of Altoona, Code of Ordinances shall be applicable for any work performed in regards to electrical, plumbing, and mechanical systems.

**158.13 BOARD OF APPEALS.** General. In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and hereby created a Board of Appeals, consisting of five (5) members. Board members shall be chosen and appointed based on diversity and building construction knowledge, all of whom shall be residents of the City of Altoona, Iowa. One (1) member of said Board of Appeals at a minimum shall be a private citizen. The Building Official or designated representative shall be an ex-officio member without a vote and shall act as secretary of the Board. The appointment of members shall be for four (4) year terms, expiring on December 31, with not more than three (3) members' terms expiring any one year.

The Building Board of Appeals shall be appointed by the Mayor, subject to Council approval, and shall serve without compensation. The Board shall adopt reasonable rules and regulations for conducting its investigations and shall render all decisions and findings in writing to the Building Official with a duplicate copy to the appellant, and may recommend to the City Council such new legislation as is consistent therewith. The Board shall meet at will and when there are appeals or business on file for a hearing.

Nominal appeal fee to the Building Board of Appeals shall be paid as set forth in Section 158.10 PERMIT FEES. The appeal shall be valid for one (1) year from the date of the Board approval to the commencement of work and to the completion of work undertaken pursuant to the approval.

**158.14 CONSTRUCTION DOCUMENTS.** The Building Official shall require construction documents, computations and specifications to be prepared by a registered design professional licensed by the State to practice such.

1. Construction documents, engineering calculations, diagrams and other data shall be submitted in two or more sets with each application for a permit.
2. Construction documents shall be drawn to scale and shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that the work conforms to the provisions of this code.
3. Construction documents shall indicate location and clear space of electrical equipment, and the material and methods for maintaining required structural safety, fire-resistance rating and fireblocking.

#### Exceptions.

1. The Building Official shall have the authority to waive the submission of construction documents, calculations or other data if the nature of the work applied for is such that reviewing of construction documents is not necessary to determine compliance with this code.
2. In the case of one and two family dwellings.
3. In the case of minor construction and repair.
4. In the case of accessory buildings when related to one and two family dwellings.

#### **158.15 EXEMPTION TO REQUIREMENTS OF STATE CONTRACTORS LICENSE.**

In accordance with Section 103.22 of the Code of Iowa a subdivision may provide licensure for those who perform business within the corporate limits of the subdivision. The following criteria must be met in order to obtain an electrical permit without being licensed by the State of Iowa Electrical Examining Board as a licensed Electrical contractor:

1. An employee having received a "Masters A or B" license as issued by the State of Iowa Electrical Examining Board must sign the permit.

**Exception:** An employee tasked with performing electrical work as indicated in their job description, which must be on file with the Department, may continue to obtain an electrical permit until December 31, 2014 after which said employee must have received a State issued Master license or one be employed by the firm/business.

2. The signatory of the permit must be an employee of a firm or business based within the community and approved by the Department of Building.
3. The firm or business must not provide electrical work for any other entity other than its own and the firm or business must not be registered with the Iowa Workforce Development, Labor Division, as an electrical contractor.
4. Employees of the firm/business who have been issued an electrical permit shall conduct the work performed for which the permit was obtained.
5. The installation to be performed does not, in any way, involve work within a new switchboard or panelboard with a voltage in excess of 480 volt.
6. The scope of work shall be limited to alterations of existing interior space of 5,000 square feet or less, not defined as a hazardous location pursuant to the adopted electrical

code, and for any new or existing accessory structure(s) of not more than 1,000 square feet in floor area, that meet #5 listed above and not defined as a hazardous location.

**158.16 SERVICE ENTRANCE WIRES.** All electrical lines not exceeding 15,000 volts and all telephone and cablevision service lines, as well as other utility lines serving any new building or structure, including signs and billboards, requiring permanent electrical service shall be placed underground unless a waiver from such is approved by the Building and Engineering Departments. The provisions of this section shall not apply to existing buildings or additions to such buildings (unless said addition requires the utility service provider to upgrade the entire system from the transformer to the structure). Nothing in this section shall be deemed to apply to temporary service when defined as such by the utility provider.

**158.17 INSPECTIONS.**

1. The person doing electrical work, for which a permit is required, shall notify the Building Official that the work is ready for inspection. The Building Official shall, without undue delay, perform the required inspection and, if the work complies with the provision of this code the Building Official shall issue a notice of approval. If the work does not comply with the provisions of this code, the Building Official shall post a notice in a conspicuous place on or near the work. The notice shall contain the date and results of the inspection, and when requested, note specific violations. Work that has no notice attached shall be considered unapproved. No notice(s) shall be removed by any person other than the Building Official.

2. When the electrical work is completed, the person doing it shall notify the Building Official that the work is ready for final inspection.

3. Whenever it shall be ascertained by inspection that any electrical installation or part thereof in any building is so defective as to render the same dangerous to person or property, the Building Official shall at once cause notice to be served upon the owner or person in charge, or the occupant of the same, to remedy the defects within a reasonable time, to be stated in the notice. If defects are not remedied within the time fixed by the notice, the Building Official may cause the electric current to be disconnected from the building. The electric current shall not again be turned on until all defects or improper conditions have been removed, or repaired in conformance with the provisions of this code.

**158.18 COVERING OR CONCEALING WORK.** No electrical work for which a permit is required shall be concealed in any manner from access or sight until the work has been inspected and approved by the Building Official.

**158.19 REMOVAL OF COVERING.** The Building Official shall have the authority to remove or cause the removal of lath, plaster, boarding, or other obstruction which may prevent the proper inspection of wires or electrical equipment.

**158.20 CORRECTING DEFECTIVE WORK.** When any person is notified that defects exist in his or her electrical work, he or she shall make corrections within 30 days after notification. If not so made, such person shall not be issued any other permits until defects are corrected, and approval given by the Building Official.

**158.21 CONFORMITY WITH STANDARDS.** Conformity with the standards of the Underwriter's Laboratories Incorporated as approved by the United States of American Standards Institute shall be evidence of conformity with approved standards for electrical equipment.

**158.22 TEMPORARY ELECTRICAL WORK.** "Temporary electrical work" means that work which is obviously installed for the convenience of a person during construction. This work shall be the complete responsibility of the person who installs it and shall not require the inspector's approval prior to being used, provided that the inspector may require corrections in the wiring to eliminate any hazardous or unsafe conditions. All such work shall be removed before final approval of permanent electrical work. Temporary electrical work shall not be permitted to remain in use in excess of six months except by written permission of the electrical inspector.

**158.23 FURNISHING CURRENT PRIOR TO APPROVAL OF WIRING.** No person or corporation generating current for electric light, heat or power in the City shall connect its system or furnish current for electrical purposes to any building or premises which has not been inspected and approved by the Building Official. Any person or corporation shall, upon written notice from the Building Official to do so, immediately disconnect such building or premises from its source of current.

**158.24 VIOLATIONS.** See Chapter 4 of this Code of Ordinances.