0780-02-01-.01 SCOPE.

(1) The provisions of this chapter shall apply to:

(a) Installation of electrical conductors and equipment within or on public and private buildings or other structures, including manufactured homes, modular building units and recreational vehicles not otherwise exempt under the provisions of Tenn. Code Ann. Title 68, Chapters 102 and 126; and floating buildings and other premises such as yards, carnivals, parking and other lots; and industrial substations.

(b) Installation of conductors that connect to the supply of electricity.

(c) Installations of other outside conductors on the premises.


0780-02-01-.02 ADOPTION BY REFERENCE. Unless otherwise provided by applicable law or the provisions of this chapter, the required minimum standards for materials, installations, use of facilities, equipment, devices and appliances conducting, conveying, consuming or using electrical energy in, or in connection with, any building, structure, or any premises located in this state shall be those prescribed in the National Electrical Code, 2008 edition, published by the National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts 02169.

0780-02-01-.03 APPROVAL OF ELECTRICAL PRODUCTS.

(1) Approved Testing Laboratories.

(a) The Commissioner of Commerce and Insurance will accept as satisfactory (when properly installed or used) materials, equipment, devices, or applicants which:

1. Bear a label, symbol, or other identifying mark of one of the following independent testing laboratories:

   American Gas Association Laboratories
   8501 East Pleasant Valley Road
   Cleveland, Ohio 44131

   Applied Research Laboratories
   5371 Northwest 161 Street
   Miami, Florida 33014

   Canadian Standards Association (CSA)
   178 Rexdale Boulevard
   Rexdale, Ontario, Canada M9W 1R3

   Detroit Testing Laboratory, Inc.
   8720 Northend Avenue
   Oak Park, Michigan 48237
   (Power-operated dispensing devices for petroleum products only)

   ETL Testing Laboratories, Inc.
   Industrial Park
   Cortland, New York 13045

   FM Approvals LLC
   1151 Boston-Providence Turnpike
   Norwood, Massachusetts 02062

   MET Electrical Testing Company, Inc.
   916 West Patapsco Avenue
   Baltimore, Maryland 21230

   NSF International
   789 N. Dixboro Road
   Ann Arbor, Michigan 48113

   QPS Evaluation Services Inc.
   81 Kelfield Street, Unit 8,
   Toronto, Ontario, M9W 5A3

   TÜV Rheinland of North America, Inc.
   12 Commerce Road
   Newtown, CT 06470

   TÜV SÜD America, Inc.
   10 Centennial Drive
(Rule 0780-02-01-.03, continued)

Peabody, Massachusetts 01960

Underwriters Laboratories, Inc.
333 Pfingsten Road
Northbrook, Illinois 60062

or

2. Are certified by another independent testing agency or laboratory to meet a standard which, in the Commissioner’s, or designee’s, judgment, provides an adequate level of safety and

(i) Is nationally recognized as an electrical product safety standard;

(ii) Is periodically revised to accommodate the latest developments in electrical products and installations; and

(iii) Is developed by the publisher in a manner which affords adequate opportunity for presentation and consideration of views of industry groups, experts, users, consumers, governmental authorities, and others having broad experience in the field involved.

(b) Any standard which is accepted by the American National Standards Institute (ANSI) shall be deemed to satisfy the requirements of part 2 of subparagraph (a) above.

(c) Where there is no published standard for a product under consideration which meets the requirements of part 2 of subparagraph (a) above, the testing agency or laboratory must identify, and justify the adequacy of, the standard or specifications on which its certification is based.

(d) Components of certified products must be evaluated for compliance with applicable safety standards, and determined to be suitable for use in such products.

(2) In lieu of evaluation by a testing agency or laboratory in accordance with paragraph (1)(a) above, the Commissioner, or designee, will consider other satisfactory evidence that a product meets safe and proper standards.


0780-02-01-.04 INSPECTIONS.

(1) Inspections of electrical installations will be conducted by deputy inspectors appointed under contract with the Commissioner of Commerce and Insurance pursuant to T.C.A. § 68-102-143. In circumstances where the need arises as determined by the Commissioner, or designee, supervisors of deputy inspectors are authorized to conduct inspections of electrical installations.

(a) Fees for such inspections for services, including all circuits connected thereto, based on total ascertainable ampere capacity, are specified in T.C.A. § 68-102-143. If the total ampere capacity is not ascertainable, the inspector may negotiate the fee based
on the estimated number of required inspections; however, any such fee shall be subject to review and approval by the Commissioner of Commerce and Insurance, or designee.

(b) Fees charged for additional inspections including inspections necessitated by rejections and inspections for circuits not previously connected to the service, shall be based on the ascertainable ampere capacity of the service or ascertainable ampere capacity of the previously unconnected circuit, and shall not exceed the maximum amounts specified in T.C.A. § 68-102-143.

(c) Inspectors may not charge mileage in excess of the standard travel reimbursement rate as determined by the Department of Finance and Administration for the State of Tennessee per mile each way for any special trip(s) requested by a property owner or contractor. This mileage charge must be approved in advance by the Commissioner, or designee.

(2) (a) Inspections are required on:

1. Complete new installations.
2. HVAC equipment.
3. New services or changes in services to existing installations.
4. Additions to existing installations, such as swimming pools, water well pumps to the wellhead, motor installations, additional rooms or spaces to existing buildings, grain drying equipment and out buildings.
5. Heat cable installations before being concealed by plaster, sheet rock, or other methods.
6. Conduit or raceways in or under masonry before covering with concrete or other permanent materials.
7. Conductors or raceways installed in all structures. This inspection is required prior to the concealing of such conductors or raceways by wall covering materials or by insulation.
8. Temporary services.

(b) A minimum of two inspections shall be required on wiring installed within or on public and private buildings or other structures. The installer shall notify the electrical inspector in writing whenever any part of a wiring installation is to be hidden from view by insulation or the permanent placement of part of the building. No wiring or raceways shall be concealed until it has been inspected and approved by the inspector. A final inspection shall be requested upon completion of the entire electrical installation.

(3) When the initial ("rough-in") inspection is conducted:

(a) All applicable circuit conductors and outlet boxes must be installed;

(b) All joints shall be made; and

(c) All grounding connections must be in compliance with Section 300.10 of the 2008 National Electrical Code except as set forth in the exceptions enumerated in this subparagraph.
Exception No. 1: Where that portion of an installation which constitutes service conductors and equipment is changed or modified.

Exception No. 2: Where all wiring or raceway is exposed.

Exception No. 3: The requirements of (a) above shall not apply where inspection is performed on raceway systems only.

(4) The electrical or Mechanical Contractor is responsible for making sure the inspector has access to the job to be inspected.

(5) The installer shall notify the inspector when the electrical installation is ready for inspection.

(6) Except as provided in rule 0780-2-1-.05(2) and for installers licensed in accordance with Tenn. Code Ann. Title 69, Chapter 10, the inspector will not issue a certificate of approval on an installation performed by any person, firm, corporation or legal entity not duly licensed in accordance with Tenn. Code Ann. Title 62, Chapter 6.

(7) It is not intended that electric service to an existing installation be disrupted pending inspection of additions or changes to such service; however, an inspection is required within seven (7) days of re-connection by the Power Supplier.

(8) Whenever service equipment has been changed out or upgraded on any existing structures, a safety inspection will be conducted pursuant to Tenn. Code Ann. §68-102-143(5).

(9) Inspections are not required on:

(a) Minor repair work, such as replacement of lamps or connection of portable devices to suitable receptacles which have been permanently installed.

(b) Installation, alteration, or repair of electric wiring or equipment installed by an electrical distribution agency for use in the generation, transmission, distribution, or metering of electrical energy.

(10) The inspector will not issue a certificate of approval on an installation performed if a building permit has not been obtained or plans have not been approved by the Department of Commerce and Insurance where required.


0780-02-01-.05 PERMITS.

(1) No electrical wiring on which an inspection is required by this chapter shall be installed without securing an electrical permit from the power distributor, local building official, Commissioner, or designee, or other issuing agent authorized by the Commissioner, or designee. The permit must be secured in the area where the work is to be performed; unless, the permit is secured from the Commissioner, or designee. Issuing agents may charge a fee of no more than five dollars ($5.00) for the issuing of a permit.
(2) Residential and Non-residential Property Owner’s Permits

(a) Any person may perform electrical work (for which an inspection is required) upon his/her own residence provided he/she first applies for and obtains a residential property owner’s electrical permit. This permit shall only extend to the applicant and the immediate members of the applicant’s family. The permit shall not authorize assistance by any other person not duly licensed in accordance with T.C.A. Title 62, Chapter 6. A residential property owner’s permit shall automatically expire upon completion of the work for which the permit was issued. All work done under such permit shall be subject to regular inspection requirements and fees and other applicable laws and regulations. Only one (1) property owner’s permit may be obtained within a twelve (12) month period unless the property owner can establish loss of his/her home by fire, windstorm, etc.; and,

(b) Any non-residential property owner may obtain a permit for electrical work to be performed on his/her property by an employee(s) licensed pursuant to T.C.A. Title 62, Chapter 6, or T.C.A. Title 69, Chapter 10, who will be performing the work in accordance with his/her duties as an employee(s) of the property owner. A non-residential property owner’s permit shall be limited to the specific property listed on the permit and shall automatically expire upon completion of the work for which the permit was issued. All work done under such permit shall be subject to regular inspection requirements and fees and other applicable laws and regulations.

(3) No permit will be required for installation of electrical systems by manufacturers of factory-manufactured structures, recreational vehicles, or modular building units; however, such manufacturers shall register with the Division of Fire Prevention of the Department of Commerce and Insurance, as required by Tenn.Code Ann. §68-102-150. This rule in no way exempts owners of any manufactured home, recreational vehicle or modular building unit from the required installation permit and inspection governed by this chapter.

(4) When applying for a permit, an applicant shall present:

(a) A check or money order in the amount of the permit fee for inspection(s), payable to the Department of Commerce and Insurance of the State of Tennessee; and

(b) Except for a residential property owner’s permit, proof of licensure pursuant to T.C.A. Title 62, Chapter 6 or T.C.A. Title 69, Chapter 10. For a non-residential property owner’s permit, the license number of the employee(s) to perform the work and certification that the employee(s) licensed pursuant to T.C.A. Title 62, Chapter 6 or T.C.A. Title 69, Chapter 10, will be performing the work in accordance with his/her duties as an employee(s) of the property owner.

(5) All electrical permits are non-transferable.

(6) In the event of rejection of an electrical installation by the inspector, a new electrical permit must be applied for and obtained.

(7) Every electrical permit shall expire two (2) years from the date of issue unless:

(a) the inspector determines that substantial progress has been made in the work authorized by the permit; and

(b) the permit holder is granted an exception after submitting a written request to the Director of the Electrical Section of the Division of Fire Prevention.
No electrical work for which a permit is required shall be commenced in any building or premises until a permit to perform such work is obtained.

A copy of the permit shall be placed in the service equipment enclosure as soon as such enclosure is installed.

If a refund for a permit fee for inspection is requested, eighty-five (85%) percent of the permit fee, the fee that would have been paid to the inspector for the inspection, will be refunded. The remaining fifteen (15%) percent of the permit fee is non-refundable to cover administrative and processing costs. Requests for refunds must be to the Division of Fire Prevention on the applicable form completed in full and must be made prior to an inspection being performed.

A returned check will result in the revocation of an issued permit.


0780-02-01-.06 EMERGENCY SITUATIONS.

(1) Power suppliers may energize services under emergency conditions resulting from windstorm, earthquakes or other catastrophic occurrences.

(2) Connections for emergency or delayed inspections shall not be made unless a permit has been obtained.


0780-02-01-.07 SPECIAL OCCUPANCIES.

(1) All lighting fixtures in barns and other outbuildings shall be of the non-conductor type directly fastened to the outlet box. Drop lights shall not be installed in barns or other buildings, unless specifically approved for the purpose used. All convenience receptacles in outbuildings shall be at least three (3) feet above floor level. Wiring in hay mows shall be installed in conduit or otherwise protected against mechanical injury.

(2) Conductors serving swimming pools which originate at a dwelling unit service equipment or sub-panel located on the interior of the dwelling unit may be installed utilizing the appropriate wiring methods contained in Chapter 3 of the 2008 National Electrical Code. The wiring method shall comply with Article 680, 2008 National Electrical Code regarding that portion of the installation on the exterior of the dwelling unit.

0780-02-01-.08 METER LOCATION.

(1) The power supplier will determine the physical location of the meter base.

(2) For multi-occupancy structures, metering equipment shall be identified to indicate the occupancy serviced.


0780-02-01-.09 INSTALLATIONS SERVICED BY MULTIPLE SOURCES. Transfer equipment associated with installations served by alternate sources of supply shall be equipped with the necessary equipment to prevent backfeed of power onto the power supplier’s system when the power supplier’s local system is not energized by its own source of power. Protective equipment and installation of equipment to prevent backfeed shall be approved by the power supplier.


0780-02-01-.10 SERVICE ENTRANCE CONDUCTORS. Service entrance conductors shall be installed in conduit where such conductors serve a structure with exterior walls of brick, stone, masonry, metal or metal-clad.


0780-02-01-.11 DWELLING UNITS.

(1) Where installed as separate units, ovens and cooktop units shall be served by individual circuits.

(2) Light fixtures in clothes closets twenty-eight (28") inches or less in depth shall be mounted on the ceiling or wall above the door. These fixtures shall be so located that the fixture is within four (4") inches of the intersection of the ceiling and entrance wall. Such fixtures shall be thermally protected and either incandescent recessed with solid lens or fluorescent with single bulb holder. Fixtures installed in closets of larger dimensions shall comply with the 2008 edition of the National Electrical Code.
Only designated circuits shall be energized following a “service entrance” inspection. Such an inspection shall only be valid for a period of forty-five (45) days from the date of inspection.

All electrical connection, including HVAC equipment, will be completed and inspected prior to final approval pursuant to Tenn. Code Ann. §§ 68-102-143(c) and (e), except as defined in paragraph (3) of this section.

Except as provided in Tenn. Code Ann. § 68-120-111(b), no one-and-two family dwellings shall be approved for connection of new electric service unless such dwelling is equipped with at least one (1) smoke detector which, when activated, initiates an alarm audible in every sleeping room. The detector or detectors shall be:

(a) Listed in accordance with the standards of Underwriters’ Laboratories, or another testing agency or laboratory accepted by the state fire marshal; and

(b) Installed in accordance with the 2003 International Residential Code, published by the International Code Council, Inc.; and in accordance with the manufacturer’s directions, unless those directions conflict with applicable codes that are adopted by the state fire marshal. Notwithstanding the provisions of the 2003 International Residential Code, battery operated smoke detectors shall be permitted when installed in buildings without commercial power.

Service equipment shall have only one (1) main means of disconnecting services of two hundred twenty-five (225) amps or below.

The installation of receptacles for island counter spaces and peninsular counter spaces below the countertop shall be optional.

Receptacles are not required in the wall space behind doors which may be opened fully against a wall surface. Wall space measurement shall begin at the edge of the door when fully opened.

Occupancy of a dwelling is prohibited before final inspection has been completed and approved.

In Article 210.12(B) of the 2008 edition of the National Electrical Code, arc-fault circuit interrupters, combination type, shall be required for all bedrooms and in all other rooms shall be optional. There shall be a maximum of no more than ten (10) outlets on a fifteen (15) ampere circuit or no more than twelve (12) outlets on a twenty (20) ampere circuit.

In Article 334.15(C) of the 2008 edition of the National Electrical Code, Nonmetallic-Sheathed Cable shall not be required to be run through bored holes in unfinished basements and crawl spaces with less than four (4’) feet and six (6”) inches of clearance.

In Article 406.8(B) of the 2008 edition of the National Electrical Code, the installation of listed weather-resistant type receptacles shall be optional.

0780-02-01-.12 OVERCURRENT PROTECTION. Circuit breakers used as overcurrent protection for circuits serving devices not requiring a grounded (neutral) conductor, such as a 240V water heater, shall be multipole breakers. Single pole circuit breakers with tie handles shall not be approved for this purpose.


0780-02-01-.13 WORK SPACE ABOUT HVAC EQUIPMENT.

(1) Installation in attic spaces.

(a) Entrance way providing access to equipment shall not be less than the largest piece of equipment to be replaced.

(b) There shall be a vertical clearance of at least four (4) feet and six (6) inches for use by those conducting necessary examination. In addition there shall be a walkway not less than twenty-four (24) inches wide on the ceiling joist running from the attic opening to the equipment, without an obstruction.

(2) Installation in crawl spaces underneath buildings.

(a) Entrance way providing access to equipment shall not be less than the largest piece of equipment to be replaced.

(b) There shall be a vertical clearance of at least four (4') feet and six (6") inches unobstructed crawl space to the unit.

(c) If four (4') feet and six (6") inches of clearance cannot be maintained, the unit shall be located no more than twelve (12') feet from the entrance opening and a clear unobstructed crawl space not less than thirty (30") inches in height and twenty-four (24") inches in width shall be maintained.

(d) Light fixtures in crawl spaces shall have guarded covers.


0780-02-01-.14 REPEALED.

0780-02-01-.15 USED MANUFACTURED HOMES.

(1) Manufactured homes shall have listed, enclosed-type service-entrance equipment located inside the manufactured home, with proper rated overcurrent protection for each branch circuit. Overcurrent protection for circuits of twenty (20) amperes or less may be either circuit breakers, or plug fuses and fuse holders of Type “S”, and shall be of the time-delay type. The manufactured home disconnecting means located inside shall be fed from an outside location with a feeder from the main service entrance for such manufactured home. If the supply or feeder from the main service to the disconnecting means located inside does not have a grounding conductor as required by Article 550 of the 2008 National Electrical Code, one shall be installed.

(2) Inspection shall be both visual and mechanical; switch and receptacle plates and light fixtures will be removed to check conductor connections, insulation of splices, boxes, and general code requirements.

(3) After the mechanical test and visual inspections have been made, a safety inspection certificate may be issued as determined by the inspector.


0780-02-01-.16 REPEALED.


0780-02-01-.17 LOCAL ORDINANCES.

No city, county, town, municipal corporation, metropolitan government or political subdivision of this state shall adopt or enforce any ordinance prescribing less stringent electrical standards than those established hereunder as determined by the Division.


0780-02-01-.18 PERMIT ISSUING AGENTS.

(1) All individuals, including all business entities, municipalities, and cooperatives, who undertake to issue electrical permits under this chapter must hold a current contract with the Department of Commerce and Insurance, as administered through the Electrical Section of the Division of Fire Prevention.

(2) State deputy electrical inspectors and their immediate families are ineligible to become issuing agents. Additionally, without prior approval from the Department, no individual or business entity in any way related to or financially associated with any Department official will be allowed to become an issuing agent.
(Rule 0780-02-01-.18, continued)


0780-02-01-.19 REPEALED.


0780-02-01-.20 LOCAL GOVERNMENT AUTHORIZATION TO PERFORM ELECTRICAL INSPECTIONS.

(1)

(a) Pursuant to T.C.A. § 68-102-143(b)(1), the Commissioner of Commerce and Insurance may authorize a local government to conduct electrical inspections through the local government's appointed deputy inspectors. This inspection authority shall cover all types of electrical installations in accordance with the law, except for state owned properties and Electric Vehicle Supply Equipment (EVSE) which remain under the jurisdiction of the Commissioner. However, authorized local jurisdictions that have adopted the 2008 NEC or a subsequent code edition and have been trained on the installation of EVSEs by the Division of Fire Prevention of the Department of Commerce and Insurance will be allowed to inspect such installations.

(b) Deputy inspectors appointed in such a manner are authorized to inspect electrical installations upon receipt of a request from the owner of the property or from any person, association or corporation supplying electrical energy to the installations, or from municipal governing bodies, or from the county legislative body of the county in which the installations are located and the inspectors for their compensation are authorized to charge for and received a fee for each inspection.

(c) If a conflict arises between the state fire marshal and the local government relative to the application or interpretation of the same or substantially identical electrical safety standards, then the determination of the state fire marshal shall supersede the conflicting application or interpretation by the local government.

(d) This rule sets forth the criteria by which local governments may seek authorization to perform electrical inspections and procedures by which the Commissioner, or designee, may review such authorization.

(2) Initial Authorization.

(a) Prior to being authorized to perform electrical inspections, the local government, through the county executive, the county commission, the mayor or the city council, shall make a written request to the state fire marshal.

(b) The request shall be completed on a form approved by the state fire marshal and shall contain the following information:

1. The title(s) and edition(s) of the code(s) that will be adopted and enforced;

2. The number and types of inspections of each installation (final, rough-in, temporary, HVAC, service release, re-inspect) that will be conducted;

3. A detailed description of the permit issuance and record-keeping process for all inspection activities;
4. The names of all persons who are employed by the local government to perform electrical inspections and who have successfully completed the respective certification examinations of the International Association of Electrical Inspectors (IAEI- 1 & 2 Family and Electrical General or Electrical Commercial), the International Code Council (ICC- Residential Electrical Inspector and Commercial Electrical Inspector), or any other certification designations approved by the Commissioner, or designee. All necessary certifications shall be obtained prior to performing electrical inspections.

(c) After receipt of the information required in paragraph (2)(b) of this rule, the state fire marshal will schedule a pre-authorization review to take place at the applying local government’s office. During this review, the state fire marshal may review any and all records related to the local government’s proposed electrical inspection program, including the certification records of persons employed to perform electrical inspections.

(d) If after consideration of the information required in paragraph (2)(b) of this rule and after the pre-authorization review the state fire marshal determines that the local government can adequately enforce electrical codes and conduct electrical inspections, the state fire marshal may authorize the local government to conduct electrical inspections.

(3) The local government’s adopted electrical code publication shall be current within seven (7) years of the date of the latest edition thereof, unless otherwise approved by the state fire marshal.


(a) For any local government that was authorized to conduct electrical inspections before January 1, 2005, the state fire marshal will conduct a review as soon as practicable of the local government’s authorization to conduct electrical inspections to determine whether the local government is adequately enforcing the adopted electrical codes and is properly performing inspections.

(b) For any local government that is authorized to conduct electrical inspections on or after January 1, 2005, the state fire marshal will conduct a review of the local government’s authorization to conduct electrical inspections to determine whether the local government is adequately enforcing the adopted electrical codes, is properly performing inspections and is otherwise in compliance with the information originally submitted to the state fire marshal for purposes of gaining authorization to perform electrical inspections. The review provided by this paragraph shall take place at least once every three (3) years.

(c) Each local government that is reviewed pursuant to this paragraph will be notified of the review in writing. When a local government is subject to the review provided by this paragraph, the local government shall submit the information required for initial authorization by paragraph (2)(b) of this rule on a form provided by the state fire marshal within thirty (30) days of its receipt of the form.

(d) As part of the review, the state fire marshal may also conduct an on-site visit to the local government to review the electrical permit and inspection process.

(e) The state fire marshal may request any other documentation it deems necessary for the local government to evidence compliance with the requirements for initial authorization set forth in paragraph (2)(b) of this rule.
(f) Report of Review.

1. After conclusion of the review, the state fire marshal will notify the local government in writing whether there are any area(s) in which the local government is not adequately enforcing the adopted electrical codes or properly performing inspections.

2. If the local government is not adequately enforcing the adopted electrical codes or properly performing inspections, the notification will contain recommended corrective action, and the local government will be directed to submit a plan of corrective action to the state fire marshal within thirty (30) days after its receipt of the notification. The plan of corrective action shall be sufficiently detailed so as to ensure compliance with all requirements for initial authorization.

3. Within thirty (30) days after receipt of the local government’s plan of corrective action, the state fire marshal shall either approve or disapprove the plan. If the plan is approved, the state fire marshal may conduct periodic follow-up reviews to ensure continued compliance with the plan. If the plan is not approved, the state fire marshal may remove the local government’s authorization to conduct electrical inspections.