AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-010 General.

Adopted standards.

(1) The 2017 edition of the National Electrical Code (NFPA 70 - 2017) including Annex A, B, and C; Commercial Building Telecommunications Cabling Standard (ANSI/TIA-568-C series, February 2009); Commercial Building Standard for Telecommunications Pathway and Spaces (TIA-569-B, October 2004); Commercial Building Grounding and Bonding Requirements for Telecommunications (ANSI-TIA-607-B, August 2011); Residential Telecommunications Cable Standard (ANSI/TIA/EIA 570-B-2004); and the National Electrical Safety Code (NESC ((~~C2-2012~~)) C2-2017 excluding Appendixes A and B) are hereby adopted by reference as part of this chapter.

On July 1, 2020, the 2020 edition of the National Electrical Code (NFPA 70-2020 including Annex A, B, and C is hereby adopted by reference as part of this chapter and replaces the 2017 edition.

This chapter will be followed where there is any conflict between this chapter and the above adopted standards.

The National Electrical Code will be followed where there is any conflict between the National Electrical Code and, ANSI/TIA/EIA 568-C, ANSI/TIA/EIA 569-B, ANSI/TIA/EIA 607-B, ANSI/TIA/EIA 570-B, or the NESC C2.

Inspections - General.

(2) Electrical inspectors will give information as to the interpretation or application of the standards in this chapter, but will not lay out work or act as consultants for contractors, owners, or users.

(3) A variance from the electrical installation requirements of chapter 19.28 RCW or this chapter may be granted by the department or the city that has electrical inspection jurisdiction when it is assured that equivalent objectives can be achieved by establishing and maintaining effective safety.

(a) Any electrical permit holder may request a variance.

(b) The permit holder must make the request in writing, using a form provided by the department, to the chief electrical inspector or to the city that has electrical inspection jurisdiction. The request must include:

(i) A description of the installation as installed or proposed;

(ii) A detailed list of the applicable code violations;

(iii) A detailed list of safety violations;

(iv) A description of the proposal for meeting equivalent objectives for code and/or safety violations; and

(v) Appropriate variance application fee as listed in chapter 296-46B WAC, Part C.

(4) Electrical wiring or equipment subject to this chapter must be sufficiently accessible, at the time of inspection, to allow the inspector to visually inspect the installation to verify conformance with the NEC and any other electrical requirements of this chapter with the exception of not more than 8 feet of electrical conduit in a foundation of a one- or two-family dwelling or residential outbuilding for use as service entrance raceway.

(5) All required equipment grounding conductors installed in concealed cable or flexible conduit systems must be completely installed and made up at the time of the rough-in cover inspection.

(6) The installation of all structural elements and mechanical systems (e.g., framing, plumbing, ducting, etc.) must be complete in the area(s) where electrical inspection is requested. Prior to completion of an exterior wall cover inspection, either:

(a) The exterior shear panel/sheathing nail inspection must be completed by the building code inspector and, where siding nails or fasteners which penetrate into the wall cavity are to be used, all siding must be installed; or

(b) All wiring and device boxes must be a minimum of 2 1/2 inches from the exterior surface of the framing member; or

(c) All wiring and device boxes must be protected by a steel plate a minimum of 1/16 inch thick and of appropriate width and height installed to cover the area of the wiring or box.

(7) In order to meet the minimum electrical safety standards for installations, all materials, devices, appliances, and equipment, not exempted in chapter 19.28 RCW, must conform to applicable electrical product standards recognized by the department, be listed, or field evaluated. For any equipment that requires an amusement operating permit under chapter 67.42 RCW, the operating permit is prima facie evidence of an appropriate standard. Other than as authorized by the chief electrical inspector or a city authorized to do electrical inspection, equipment must not be energized until such standards are met.

(8) The state department of transportation is recognized as the inspection authority for telecommunications systems installations within the rights of way of state highways provided the department of transportation maintains and enforces an equal, higher or better standard of construction, and of materials, devices, appliances, and equipment than is required for telecommunications systems installations by chapter 19.28 RCW and this chapter.

Inspection move on buildings and structures.

(9) All buildings or structures relocated into or within the state:

(a) Other than residential, wired inside the United States (U.S.) must be inspected to ensure compliance with current requirements of chapter 19.28 RCW and the rules developed by the department.

(b) Wired outside the U.S. or Canada must be inspected to ensure compliance with all current requirements of chapter 19.28 RCW and the rules developed by the department.

(10) Residential buildings or structures wired in the U.S., to NEC requirements, and moved into or within a county, city, or town must be inspected to ensure compliance with the NEC requirements in effect at the time and place the original wiring was made. The building or structure must be inspected to ensure compliance with all current requirements of chapter 19.28 RCW and the rules developed by the department if:

(a) The original occupancy classification of the building or structure is changed as a result of the move; or

(b) The building or structure has been substantially remodeled or rehabilitated as a result of the move.

(11) Residential buildings or structures wired in Canada to Canadian Electrical Code (CEC) standards and moved into or within a county, city, or town, must be inspected to ensure compliance with the following minimum safety requirements:

(a) Service, service grounding, and service bonding must comply with the current chapter 19.28 RCW and rules adopted by the department.

(b) Canadian Standards Association (CSA) listed Type NMD cable is allowed with the following qualifications:

(i) CSA listed Type NMD cable, American Wire Gauge #10 and smaller installed after 1964 utilizing an equipment grounding conductor smaller than the phase conductors, must be:

(A) Replaced with a cable utilizing a full-size equipment grounding conductor; or

(B) Protected by a ground fault circuit interrupter protection device.

(ii) CSA listed Type NMD cable, #8 AWG and larger, must:

(A) Utilize an equipment grounding conductor sized according to the requirements of the NEC in effect at the time of the installation;

(B) Be protected by a ground fault circuit interrupter protection device; or

(C) Be replaced.

(c) Other types of wiring and cable must be:

(i) Replaced with wiring listed or field evaluated in accordance with U.S. standards by a laboratory approved by the department; or

(ii) Protected by a ground fault circuit interrupter protection device and arc fault circuit protection device.

(d) Equipment, other than wiring or panelboards, manufactured and installed prior to 1997 must be listed and identified by laboratory labels approved by the department or CSA labels.

(e) All panelboards must be listed and identified by testing laboratory labels approved by the department with the following qualifications:

(i) CSA listed panelboards labeled "suitable for use as service equipment" will be considered to be approved as "suitable for use only as service equipment."

(ii) CSA listed panelboards used as panelboards as described in the NEC, must meet all current requirements of the NEC and this chapter.

(f) Any wiring or panelboards replaced or changed as a result of the move must meet current requirements of chapter 19.28 RCW and this chapter.

(g) The location, type, and ground fault circuit interrupter protection of receptacles and equipment in a bathroom, kitchen, basement, garage, or outdoor area must meet the Washington requirements in effect at the time the wiring was installed.

(h) 4, 15-ampere, kitchen small appliance circuits will be accepted in lieu of 2, 20-ampere, kitchen small appliance circuits. Receptacles will not be required to be added on kitchen peninsular or island counters.

(i) Spacing requirements for all other receptacles must meet the Washington requirements in effect at the time the wiring was installed.

(j) Receptacles installed above baseboard or fixed wall space heaters must be removed and the outlet box covered with a blank cover. The receptacle is required to be relocated as closely as possible to the existing location.

(k) Lighting outlet and switch locations must meet the Washington requirements in effect at the time the wiring was installed.

(l) Dedicated 20-ampere small appliance circuits are not required in dining rooms.

(m) Electric water heater branch circuits must be adequate for the load.

(n) The location, type, and circuit protection of feeders must meet the Washington requirements in effect at the time the wiring was installed.

Wiring methods for designated building occupancies.

(12) Wiring methods in educational or institutional facilities as defined in this chapter must be metallic or nonmetallic raceways, MI, MC, or AC cable. Places of assembly located within these facilities must comply with NEC 518.4(A).

(13) Assisted living facility generator systems may be wired and installed per NEC 517.

(14) Lawfully installed existing electrical installations that do not comply with the provisions of this chapter and remain in compliance with the code at the time of the installation, will be permitted to be continued without change (i.e., without circuitry or occupancy change). Additions, alterations, modifications, or repairs to the electrical system must conform to the current requirements of this chapter.

(15) See WAC 296-46B-406R for tamper-resistant receptacle requirements in psychiatric patient care facilities.

Traffic management systems.

(16) The department or city authorized to do electrical inspections will perform the electrical inspection and acceptance of traffic management systems within its jurisdiction. A traffic management system includes:

(a) Traffic illumination systems;

(b) Traffic signal systems;

(c) Traffic monitoring systems;

(d) The electrical service cabinet and all related components and equipment installed on the load side of the service cabinet supplying electrical power to the traffic management system; and

(e) Signalization system(s) necessary for the operation of a light rail system.

A traffic management system can provide signalization for controlling vehicular traffic, pedestrian traffic, or rolling stock.

(17) The department or city authorized to do electrical inspections recognizes that traffic signal conductors, pole and bracket cables, signal displays, traffic signal controllers/cabinets and associated components used in traffic management systems are acceptable for the purpose of meeting the requirements of chapter 19.28 RCW provided they conform with the following standards or are listed on the Washington state department of transportation (WSDOT) qualified products list.

(a) WSDOT/APWA standard specifications and plans;

(b) WSDOT *Design Manual*;

(c) International Municipal Signal Association (IMSA);

(d) National Electrical Manufacturer's Association (NEMA);

(e) Federal Standards 170/Controller Cabinets;

(f) Manual for *Uniform Road, Bridge, and Municipal Construction*;

(g) Institute of Transportation Engineers (ITE); or

(h) Manual of *Uniform Traffic Control Devices (MUTCD)*.

(18) Associated induction detection loop or similar circuits will be accepted by the department or city authorized to do electrical inspections without inspection.

(19) For the licensing requirements of chapter 19.28 RCW, jurisdictions will be considered owners of traffic management systems when

doing electrical work for another jurisdiction(s) under a valid interlocal agreement, as permitted by chapter 39.34 RCW. Interlocal agreements for traffic management systems must be filed with the department or city authorized to do electrical inspections prior to work being performed for this provision to apply.

(20) Jurisdictions, with an established electrical inspection authority, and WSDOT may perform electrical inspection on their rights of way for each other by interlocal agreement. They may not perform electrical inspection on other rights of way except as allowed in chapter 19.28 or 39.34 RCW.

(21) Underground installations.

(a) In other than open trenching, raceways will be considered "fished" according to the NEC and do not require visual inspection.

(b) The department or city authorized to do electrical inspections will conduct inspections in open trenching within its jurisdiction. The electrical work permit purchaser must coordinate the electrical inspection. A written request (e.g., letter, email, fax, etc.) for inspection, made to the department or city authorized to do electrical inspections office having the responsibility to perform the inspection, must be made a minimum of two working days prior to the day inspection is needed (e.g., two working days 10:00 a.m. Tuesday request for a 10:00 a.m. Thursday inspection, excluding holidays and weekends).

If, after proper written request, the department or city authorized to do electrical inspections fails to make an electrical inspection at the time requested, underground conduit may be covered after inspection by the local government jurisdiction's project inspector/designee. Written documentation of a local government jurisdiction inspection must be provided to the department or city authorized to do electrical inspections when requested. Written documentation will include:

(i) Date and time of inspection;

(ii) Location;

(iii) Installing firm;

(iv) Owner;

(v) Type of conduit;

(vi) Size of conduit;

(vii) Depth of conduit; and

(viii) Project inspector/designee name and contact information.

(22) Identification of traffic management system components. Local government jurisdictions or WSDOT may act as the certifying authority for the safety evaluation of all components.

(a) An electrical service cabinet must contain only listed components. The electrical service cabinet enclosure is not required to be listed but will conform to the standards in subsection (17) of this section.

(b) The local government jurisdiction must identify, as acceptable, the controller cabinet or system component(s) with an identification plate. The identification plate must be located inside the cabinet and may be attached with adhesive.

(23) Conductors of different circuits in same cable, enclosure, or raceway. All traffic management system circuits will be permitted to occupy the same cable, enclosure, or raceway without regard to voltage characteristics, provided all conductors are insulated for the maximum voltage of any conductor in the cable, enclosure, or raceway.

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-100 General definitions. All definitions listed in the National Electrical Code and chapter 19.28 RCW are recognized in this chapter unless other specific definitions are given in this chapter and chapter 19.28 RCW. The definitions in this section apply to all parts of this chapter. Some sections may have definitions specific to that section.

"Accreditation" is a determination by the department that a laboratory meets the requirements of this chapter and is therefore authorized to evaluate electrical products that are for sale in the state of Washington.

"Administrative law judge" means an administrative law judge (ALJ) appointed pursuant to chapter 34.12 RCW and serving in board proceedings pursuant to chapter 19.28 RCW and this chapter.

"ANSI" means American National Standards Institute. Copies of ANSI standards are available from the National Conference of States on Building Codes and Standards, Inc.

"Appeal" is a request for review of a department action by the board as authorized by chapter 19.28 RCW.

"Appellant" means any person, firm, partnership, corporation, or other entity that has filed an appeal or request for board review.

"Appliance" means household appliance.

"ASTM" means the American Society for Testing and Materials. Copies of ASTM documents are available from ASTM International.

"AWG" means American Wire Gauge.

"Basement" means that portion of a building that is partly or completely below grade plane. A basement will be considered as a story above grade plane and not a basement where the finished surface of the floor above the basement is:

(a) More than 6 feet above grade plane;

(b) More than 6 feet above the finished ground level for more than 50% of the total building perimeter; or

(c) More than 12 feet above the finished ground level at any point. Also see "mezzanine" and "story."

"Board" means the electrical board established and authorized under chapter 19.28 RCW.

"Category list" is a list of manufacturing safety standards or product types determined by the department.

A "certified electrical product" is an electrical product to which a laboratory, accredited by the state of Washington, has the laboratory's certification mark attached.

A "certification mark" is a specified laboratory label, symbol, or other identifying mark that indicates the manufacturer produced the product in compliance with appropriate standards or that the product has been tested for specific end uses.

"Certificate of competency" includes the certificates of competency for master journey level electrician, master specialty electrician, journey level, and specialty electrician.

A laboratory "certification program" is a specified set of testing, inspection, and quality assurance procedures, including appropriate implementing authority, regulating the evaluation of electrical products for certification marking by an electrical products certification laboratory.

A "complete application" includes the submission of all appropriate fees, documentation, and forms.

"Chapter" means chapter 296-46B WAC unless expressly used for separate reference.

"Construction," for the purposes of chapter 19.28 RCW, means electrical construction.

"Coordination (selective)" as defined in NEC 100 must be determined and documented by a professional engineer registered under chapter 18.43 RCW.

"Department" means the department of labor and industries of the state of Washington.

"Director" means the director of the department, or the director's designee.

"Egress - Unobstructed (as applied to NEC 110.26 (C)(2)(a))" means an egress path that allows a worker to travel to the exit from any other area in the room containing the equipment described in NEC 110.26 (C)(2) without having to pass through that equipment's required working space.

"Electrical equipment" includes electrical conductors, conduit, raceway, apparatus, materials, components, and other electrical equipment not exempted by RCW 19.28.006(9). Any conduit/raceway of a type listed for electrical use is considered to be electrical equipment even if no wiring is installed in the conduit/raceway at the time of the conduit/raceway installation.

An "electrical products certification laboratory" is a laboratory or firm accredited by the state of Washington to perform certification of electrical products.

An "electrical products evaluation laboratory" is a laboratory or firm accredited by the state of Washington to perform on-site field evaluation of electrical products for safety.

"Field evaluated" means an electrical product to which a field evaluation mark is attached. Field evaluation must include job site inspection unless waived by the department, and may include component sampling and/or laboratory testing.

"Field evaluation mark" is a specified laboratory label, symbol, or other identifying mark indicating the manufacturer produced the product in essential compliance with appropriate standards or that the product has been evaluated for specific end uses.

A "field evaluation program" is a specified set of testing, inspection, and quality assurance procedures, including appropriate implementing authority regulating the testing and evaluation of electrical products for field evaluation marking.

The "filing" is the date the document is actually received in the office of the chief electrical inspector.

"Final judgment" means any money that is owed to the department under this chapter, including fees and penalties, or any money that is owed to the department as a result of an individual's or contractor's unsuccessful appeal of a citation.

"Fished wiring" is when cable or conduit is installed within the finished surfaces of an existing building or building structure (e.g., wall, floor or ceiling cavity).

"Household appliance" means utilization equipment installed in a dwelling unit that is built in standardized sizes or types and is installed or connected as a unit to perform one or more household functions such as ((~~cooking and other equipment~~)) food preparation, cooking, and cleaning. Includes appliances typically installed in a dwelling unit kitchen, clothes ((~~drying, clothes~~)) washing, drying, and wa-

ter heating appliances, portable room air conditioning units and portable heaters, etc. Fixed electric space-heating equipment covered in NEC 424 (furnaces, baseboard and wall heaters, electric heat cable, etc.) and fixed air-conditioning/heat pump equipment (NEC 440) are not household appliances. Household appliance does not mean any utilization equipment that:

(a) Supplies electrical power, other than Class 2, to other utilization equipment; or

(b) Receives electrical power, other than Class 2, through other utilization equipment.

HVAC/refrigeration specific definitions:

(a) "HVAC/refrigeration" means heating, ventilation, air conditioning, and refrigeration.

(b) "HVAC/refrigeration component" means electrical power and limited energy components within the "HVAC/refrigeration system," including, but not limited to: Pumps, compressors, motors, heating coils, controls, switches, thermostats, humidistats, low-voltage damper controls, outdoor sensing controls, outside air dampers, standalone duct smoke detectors, air monitoring devices, zone control valves and equipment for monitoring of HVAC/refrigeration control panels and low-voltage connections. This definition excludes equipment and components of non-"HVAC/refrigeration control systems."

(c) "HVAC/refrigeration control panel" means an enclosed, manufactured assembly of electrical components designed specifically for the control of a HVAC/refrigeration system. Line voltage equipment that has low voltage, NEC Class 2 control or monitoring components incidental to the designed purpose of the equipment is not an HVAC/refrigeration control panel (e.g., combination starters).

(d) "HVAC/refrigeration control system" means a network system regulating and/or monitoring a HVAC/refrigeration system. Equipment of a HVAC/refrigeration control system includes, but is not limited to: Control panels, data centers, relays, contactors, sensors, and cables related to the monitoring and control of a HVAC/refrigeration system(s).

(e) "HVAC/refrigeration equipment" means the central unit primary to the function of the "HVAC/refrigeration system." HVAC/refrigeration includes, but is not limited to: Heat pumps, swamp coolers, furnaces, compressor packages, and boilers.

(f) "HVAC/refrigeration system" means a system of HVAC/refrigeration: Wiring, equipment, and components integrated to generate, deliver, or control heated, cooled, filtered, refrigerated, or conditioned air. This definition excludes non-HVAC/refrigeration control systems (e.g., fire alarm systems, intercom systems, building energy management systems, and similar non-HVAC/refrigeration systems).

"IBC" means the International Building Code. Copies of the IBC are available from the International Code Council.

An "individual" or "party" or "person" means an individual, firm, partnership, corporation, association, government subdivision or unit thereof, or other entity.

An "installation" includes the act of installing, connecting, repairing, modifying, or otherwise performing work on an electrical system, component, equipment, or wire except as exempted by WAC 296-46B-925. An installation is not the passive testing or operational programming of an electrical system, component, equipment, or wire. See "passive testing."

An "identification plate" is suitable for the environment and is a printed or etched adhesive label approved by the department or a

phenolic or metallic plate or other similar material engraved in block letters at least 1/4 inch high unless specifically required to be larger by this chapter, suitable for the environment and application. The letters and the background must be in contrasting colors. Screws, rivets, permanent adhesive, or methods specifically described in this chapter must be used to affix an identification plate to the equipment or enclosure.

"Job site" means a specific worksite having a single address or specific physical location (e.g., a single-family residence, a building, a structure, a marina, an individual apartment building with a specific address, etc.).

"Journey level electrician" means a person who has been issued a journey level electrician certificate of competency by the department. The terms "journey level" and "journeyperson" in chapter 19.28 RCW are synonymous.

"Labeled" means an electrical product that bears a certification mark issued by a laboratory accredited by the state of Washington.

A "laboratory" may be either an electrical product(s) certification laboratory or an electrical product(s) evaluation laboratory.

A "laboratory operations control manual" is a document to establish laboratory operation procedures and may include a laboratory quality control manual.

"License" means a license required under chapter 19.28 RCW.

"Like-in-kind" means having the same overcurrent protection requirements and similar characteristics such as voltage requirement, current draw, short circuit characteristics, and function within the system and being in the same location. Like-in-kind also includes any equipment component authorized by the manufacturer as a suitable component replacement part.

For the purpose of WAC 296-46B-940, a "lineworker" is a person employed by a serving electrical utility or employed by a licensed general electrical contractor who carries, on their person, evidence that they:

(a) Have graduated from a department-approved lineworker's apprenticeship course; or

(b) Are currently registered in a department-approved lineworker's apprenticeship course and are working under the direct one hundred percent supervision of a journey level electrician or a graduate of a lineworker's apprenticeship course approved by the department. The training received in the lineworker's apprenticeship program must include training in applicable articles of the currently adopted National Electrical Code.

"Listed" means equipment has been listed and identified by a laboratory approved by the state of Washington for the appropriate equipment standard per this chapter.

"Low voltage" means:

(a) NEC, Class 1 power limited circuits at 30 volts maximum.

(b) NEC, Class 2 circuits powered by a Class 2 power supply as defined in NEC 725.121(A).

(c) NEC, Class 3 circuits powered by a Class 3 power supply as defined in NEC 725.121(A).

(d) Circuits of telecommunications systems as defined in chapter 19.28 RCW.

"Member of the firm" means the member(s) on file with the department of licensing for sole proprietorships/partnerships or with the secretary of state for corporations.

"Mezzanine" is the intermediate level or levels between the floor and ceiling of any story with an aggregate floor area of not more than one-third of the area of the room or space in which the level or levels are located. Also see "basement" and "story."

"NEC" means National Electrical Code. Copies of the NEC are available from the National Fire Protection Association.

"NEMA" means National Electrical Manufacturer's Association. Copies of NEMA standards are available from the National Electrical Manufacturer's Association.

"NESC" means National Electrical Safety Code. Copies of the NESC are available from the Institute of Electrical and Electronics Engineers, Inc.

"NETA" means International Electrical Testing Association, Inc. Copies of the NETA standards and information are available from the International Electrical Testing Association, Inc.

"NFPA" means the National Fire Protection Association. Copies of NFPA documents are available from the National Fire Protection Association.

"NRTL" means Nationally Recognized Testing Laboratory accredited by the federal Occupational Safety and Health Administration (OSHA) after meeting the requirements of 29 C.F.R. 1910.7.

A "new building" for the purposes of RCW 19.28.261 includes the setting of a manufactured, mobile, or modular building.

"Passive testing" (e.g., pressing of test buttons, use of testing equipment like voltage testers, clamp-on meters, removal of a device head where the wiring is terminated on a separate base plate, etc.) means testing that does not require any:

(a) Physical modification to the electrical system wiring; or

(b) Wiring to be disconnected or terminated, except as necessary for an approved electrical testing laboratory or approved engineer performing an equipment evaluation.

"Point of contact" or "point of connection" means the service point.

"Proceeding" means any matter regarding an appeal before the board including hearings before an administrative law judge.

"Public area or square" is an area where the public has general, clear, and unrestricted access.

A "quality control manual" is a document to maintain the quality control of the laboratory's method of operation. It consists of specified procedures and information for each test method responding to the requirements of the product standard. Specific information must be provided for portions of individual test methods when needed to comply with the standard's criteria or otherwise support the laboratory's operation.

"RCW" means the Revised Code of Washington. Copies of electrical RCW are available from the department and the office of the code reviser.

"Readily accessible" means the definition as defined in NEC 100. In addition, it means that, except for keys, no tools or other devices are necessary to gain access (e.g., covers secured with screws, etc.).

((~~Service specific definitions replacing those found in NEC Article 100:~~

~~(a) "Service drop" means the overhead service conductors from the service point to the connection to the service-entrance conductors at the building or other structure.~~

~~(b) "Service-entrance conductors, overhead system" means the service conductors between the terminals of the service equipment and~~

~~a point usually outside the building, clear of building walls, where joined by tap or splice to the service drop or service point.~~

~~(c) "Service-entrance conductors, underground system" means the service conductors between the terminals of the service equipment and the point of connection to the service lateral or service point. Where the service equipment is located outside the building walls, there may be no service-entrance conductors or they may be entirely outside the building.~~

~~(d) "Service lateral" means the underground service conductors from the service point to the point of connection to the service-entrance conductors in a terminal box, meter, or other enclosure. Where there is not a terminal box, meter, or other enclosure, the point of connection is the point of entrance of the service conductors into the building.~~

~~A "stand-alone amplified sound or public address system" is a system that has distinct wiring and equipment for audio signal generation, recording, processing, amplification, and reproduction. This definition does not apply to telecommunications installations.~~))

"Service" or "served" means that as defined in RCW 34.05.010(19) when used in relation to department actions or proceedings.

A "sign," when required by the NEC, for use as an identification method (e.g., legibly marked, legible warning notice, marked, field marked, permanent plaque/directory, etc.) means "identification plate."

A "stand-alone amplified sound or public address system" is a system that has distinct wiring and equipment for audio signal generation, recording, processing, amplification, and reproduction. This definition does not apply to telecommunications installations.

"Story" is that portion of a building included between the upper surface of a floor and the upper surface of the floor or roof next above. Next above means vertically and not necessarily directly above. Also see "basement" and "mezzanine."

"Structure," for the purposes of this chapter and in addition to the definition in the NEC, means something constructed either in the field or factory that is used or intended for supporting or sheltering any use or occupancy as defined by the IBC.

"Supervision" for the purpose of supervising electrical trainees, means that the appropriately certified supervising electrician is on the same job site as the trainee being supervised. The trainee is not considered to be on the same job site if the supervising electrician and the trainee are working:

(a) In separate buildings at a single address (e.g., a campus, multibuilding industrial complex, multibuilding apartment complex, etc.) except for a single-family residence; or

(b) On an outdoor project (e.g., irrigation system, farm, street lighting, traffic signalization, etc.) where the trainee is more than 1000 feet from the supervising electrician or where the trainee is more than 200 feet from the supervising electrician and out of sight.

"System design review" means a set of design documents that include the manufacturer's installation information, a legible one-line diagram of the system design, and calculations used to determine voltage and current within the system. The one-line diagram must show the system equipment, devices, overcurrent protection, conductor sizing, grounding, ground fault protection if required, and any system interconnection points. The review must be available to the inspector during all inspections.

A "telecommunications local service provider" is a regulated or unregulated (e.g., by the Federal Communications Commission or the utilities and transportation commission as a telephone or telecommunications provider) firm providing telecommunications service ahead of the telecommunications network demarcation point to an end-user's facilities.

"TIA/EIA" means the Telecommunications Industries Association/Electronic Industries Association which publishes the TIA/EIA Telecommunications Building Wiring Standards. Standards and publications are adopted by TIA/EIA in accordance with the American National Standards Institute (ANSI) patent policy.

A "training school" is a public community or technical college or not-for-profit nationally accredited technical or trade school licensed by the work force training and education coordinating board under chapter 28C.10 RCW.

"Under the control of a utility" for the purposes of RCW 19.28.091 and 19.28.101 is when electrical equipment is not owned by a utility and:

(a) Is located in a vault, room, closet, or similar enclosure that is secured by a lock or seal so that access is restricted to the utility's personnel; or

(b) The utility is obligated by contract to maintain the equipment and the contract provides that access to the equipment is restricted to the utility's personnel or other qualified personnel.

"UL" means Underwriters Laboratory.

"Utility" means an electrical utility.

"Utility system" means electrical equipment owned by or under the control of a serving utility that is used for the transmission or distribution of electricity from the source of supply to the point of contact and is defined in section 90.2 (b)(5) of the National Electrical Code, 1981 edition (see RCW 19.28.010(1)).

"Utilization voltage" means the voltage level employed by the utility's customer for connection to lighting fixtures, motors, heaters, or other electrically operated equipment other than power transformers.

"Variance" is a modification of the electrical requirements as adopted in chapter 19.28 RCW or any other requirements of this chapter that may be approved by the chief electrical inspector if assured that equivalent objectives can be achieved by establishing and maintaining effective safety.

"WAC" means the Washington Administrative Code. Copies of this chapter of the WAC are available from the department and the office of the code reviser.

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-210 Wiring and protection—Branch circuits.

008(A) Dwelling units GFCI requirements.

(1) In a garage or unfinished basement, a red receptacle, with a red cover plate, supplying a fire alarm system is not required to have ground-fault circuit-interrupter protection. The receptacle must be

identified for use only with the fire alarm system by an identification plate or engraved cover with letters at least 1/4 inch high.

(2) All fixed electrical equipment with exposed grounded metal parts within an enclosed shower area or within 5 feet of the top inside edge of a bathtub must have ground fault circuit interrupter protection.

008(B) Other than dwelling units - GFCI requirements.

(3) GFCI requirements. GFCI protection for personnel will not be required for:

(a) Three-phase receptacles unless specifically required elsewhere in the NEC; or

(b) Receptacles used for recreational vehicle supply equipment or for attachment of a mobile home supply cord other than 125-volt, single phase, 15- or 20-ampere receptacles.

For the purposes of NEC 210.8(B), kitchen means any area where utensils, dishes, etc., are cleaned or where food or beverages are prepared or cooked.

011 Branch circuits.

(4) A raceway system or one dedicated 15-ampere minimum, 120 volt circuit must be taken to all unfinished space areas adaptable to future dwelling unit living areas that are not readily accessible to the service or branch circuit panelboard. One circuit or raceway is required for each 480 square feet or less of unfinished space area. If the total adjacent unfinished space area is less than 480 square feet, the circuit can be an extension of an existing circuit. The circuits must terminate in a suitable box(es). The box must contain an identification of the intended purpose of the circuit(s). The branch circuit panelboard must have adequate space and capacity for the intended load(s).

013 Ground fault protection of equipment.

(5) Equipment ground fault protection systems required by the NEC must be tested prior to being placed into service to verify proper installation and operation of the system as determined by the manufacturer's published instructions. A firm having qualified personnel and proper equipment must perform the tests required. A copy of the manufacturer's performance testing instructions and a written performance acceptance test record signed by the person performing the test must be available at the time of inspection. The performance acceptance test record must include test details including, but not limited to, all trip settings and measurements taken during the test.

025 Common area branch circuits.

(6) For the purpose of NEC 210.25, loads for septic or water well systems that are shared by no more than two dwelling units may be supplied from either of the two dwelling units if approved by the local building official and local health department.

052 (A)(2) Dwelling unit receptacle outlets.

(7) For the purpose of NEC 210.52 (A)(2)(1), "similar openings" include the following configurations that are a permanent part of the dwelling configuration or finish:

(a) Window seating; and

(b) Bookcases or cabinets that extend from the floor to a level at least 5 feet 6 inches above the floor.

Any outlets eliminated by such window seating, bookcases, or cabinets must be installed elsewhere within the room.

052(C) Countertops.

(8) A receptacle in a wall countertop space shall be permitted to serve as the receptacle for a peninsular countertop space where the

spaces are contiguous and the receptacle is located within 8 feet of the outside edge of the peninsular countertop.

AMENDATORY SECTION (Amending WSR 14-11-075, filed 5/20/14, effective 7/1/14)

WAC 296-46B-215 Wiring and protection—Feeders.

002 Minimum rating and size.

(1) For other than one- or two-family dwelling feeders rated up to 400 amperes, if the feeder conductors have a lesser ampacity than the equipment rating that they terminate in or on, an identification plate showing conductor ampacity stating: "Feeder conductor ampacity: _____ " must be installed on the equipment at the load end of the feeder conductors.

005 Diagrams of feeders.

((~~(1)~~)) (2) Other than plan review projects, the installer must provide a one-line diagram showing the service and feeder details for the project before the initial inspection can be approved for all non-dwelling services or feeders:

(a) Larger than 400 amperes; or

(b) Over 600 volts.

The diagram must be signed and dated by the project owner if the owner is doing the work, the assigned administrator or master electrician if an electrical contractor is doing the work, or stamped with an engineer's mark and signature who is registered under chapter 18.43 RCW. The diagram must show:

(c) All services including: Wire size(s), wire type(s), service size(s) (e.g., voltage, phase, ampacity), overcurrent protection, available symmetrical fault current at the service point, equipment short-circuit rating, total load before and after demand factors have been applied including any demand factors used, and a panel schedule where multiple disconnecting devices are present; and

(d) All feeders including: Wire size(s), wire type(s), feeder size(s) (e.g., voltage, phase, ampacity), overcurrent protection, total calculated load before and after demand factors have been applied including any demand factors used, and a panel schedule(s) where multiple disconnecting devices are present.

If the installer deviates, in any way, from the service/feeder design shown on the diagram, a supplemental diagram must be supplied to the inspector showing the most recent design before inspection can proceed. Load reductions and moving branch circuit locations within a panelboard do not require a supplemental diagram. Written documentation must also be provided to the inspector that the supplemental diagram was provided to the project owner at the time of submission to the inspector.

The diagram must be available on the job site during the inspection process.

010 Ground fault protection testing.

((~~(2)~~)) (3) Equipment ground fault protection systems required by the NEC must be tested prior to being placed into service to verify proper installation and operation of the system as determined by the manufacturer's published instructions. This test or a subsequent test must include all system feeders unless the installer can demonstrate,

in a manner acceptable to the inspector, that there are no grounded conductor connections to the feeder(s). A firm having qualified personnel and proper equipment must perform the tests required. A copy of the manufacturer's performance testing instructions and a written performance acceptance test record signed by the person performing the test must be available at the time of inspection. The performance acceptance test record must include test details including, but not limited to, all trip settings and measurements taken during the test.

AMENDATORY SECTION (Amending WSR 13-03-128, filed 1/22/13, effective 3/1/13)

WAC 296-46B-225 Wiring and protection—Outside branch circuits and feeders.

019 Clearances from buildings for conductors.

(1) Add the following exception to NEC 225.19(A): Where the voltage between conductors does not exceed 300 and the roof area is guarded or isolated, a reduction in clearance to 3 feet shall be permitted.

030 Number of supplies.

((~~(1)~~)) (2) For the purposes of NEC 225.30(A) and this section, a building/structure that is supplied from a remote service, may be supplied by no more than six feeders originating from the service equipment and with each feeder terminating in a single disconnecting means at the building/structure. The service equipment must contain overcurrent protection appropriate to each feeder. The building disconnecting means required by NEC 225.32 must be grouped, within sight, and all be within 10' of each other.

032 Location of outside feeder disconnecting means.

((~~(2)~~)) (3) The disconnecting means required by NEC 225.32 must be provided to disconnect all ungrounded conductors that supply or pass through a building/structure in accordance with the requirements of NEC 225.32 with the following exceptions.

(a) Outside location: A feeder disconnecting means, including that required by NEC 700, 701, or 702 for a generator, is considered in the building if installed on the outside of the building/structure or within sight and within fifteen feet of the building/structure. The building disconnecting means may supply only one building/structure unless the secondary building(s)/structure(s) has a separate building disconnecting means meeting the requirements of the NEC and this subsection. The disconnecting means must have an identification plate with at least one-half-inch high letters identifying:

(i) The building/structure served; and

(ii) Its function as the building/structure main disconnect(s).

(b) Inside location: The feeder disconnecting means may be installed anywhere inside a building or structure when there is a feeder disconnecting means, located elsewhere on the premises, with overcurrent protection sized for the feeder conductors.

((~~(3)~~)) **036 Suitable for use as service equipment.**

(4) A generator disconnecting means installed per subsection ((~~(2)~~)) (3)(a) or (b) of this section, is not required to be suitable for use as service equipment.

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-230 Wiring and protection—Services.

001 General service requirements.

(1) The owner, the owner's agent, or the electrical contractor making the installation must consult the serving utility regarding the utility's service entrance requirements for equipment location and meter equipment requirements before installing the service and equipment. Provisions for a meter and related equipment, an attachment of a service drop, or an underground service lateral must be made at a location acceptable to the serving utility. The point of contact for a service drop must permit the clearances required by the NEC.

(2) A firewall must have a minimum two-hour rating as defined by the local building official to be considered a building separation in accordance with Article 100 NEC.

(3) The height of the center of the service meter must be as required by the serving utility. Secondary instrument transformer metering conductor(s) are not permitted in the service raceway.

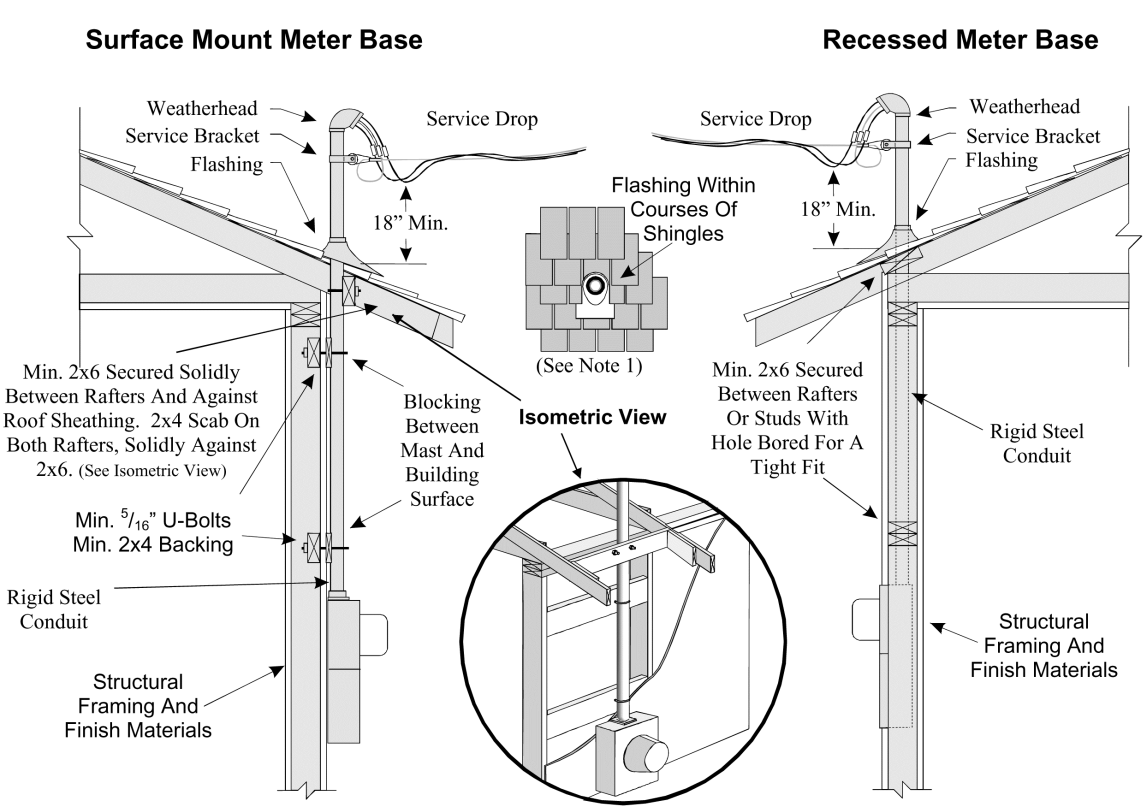
028 Service or other masts.

(4) Conduit extended through the roof to provide means of attaching:

(a) All overhead drops for service, feeder, or branch circuits exceeding #1 AWG aluminum or #3 AWG copper must be rigid steel galvanized conduit no smaller than 2 inches.

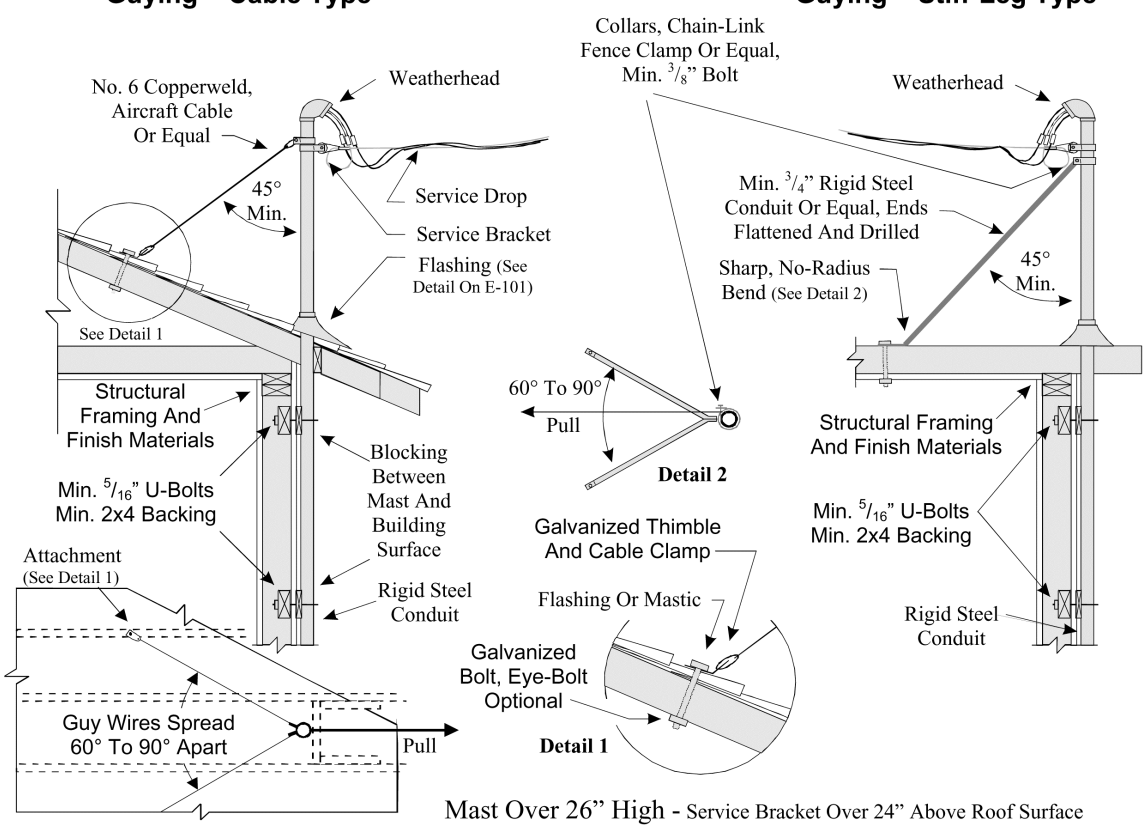
(b) All overhead drops for service, feeder or branch circuits not exceeding #1 AWG aluminum or #3 AWG copper must be rigid steel galvanized conduit no smaller than 1 1/4 inches. The installation must comply with drawings E-101 and/or E-102, or must provide equivalent strength by other approved means. Masts for altered or relocated installations will be permitted to comply with drawing E-103.

((~~(c) For the purposes of NEC 225.19 and 230.24, a residential patio cover, that is not over one story and not over 12 feet in height and is used only for recreation or outdoor living purposes and not as a carport, garage, storage room or habitable room as described in Appendix Chapter 1 in the IBC and Appendix Chapter H in the IRC, is not considered a roof. Overhead conductor spans must maintain a minimum 36 inches clearance above these covers.~~))

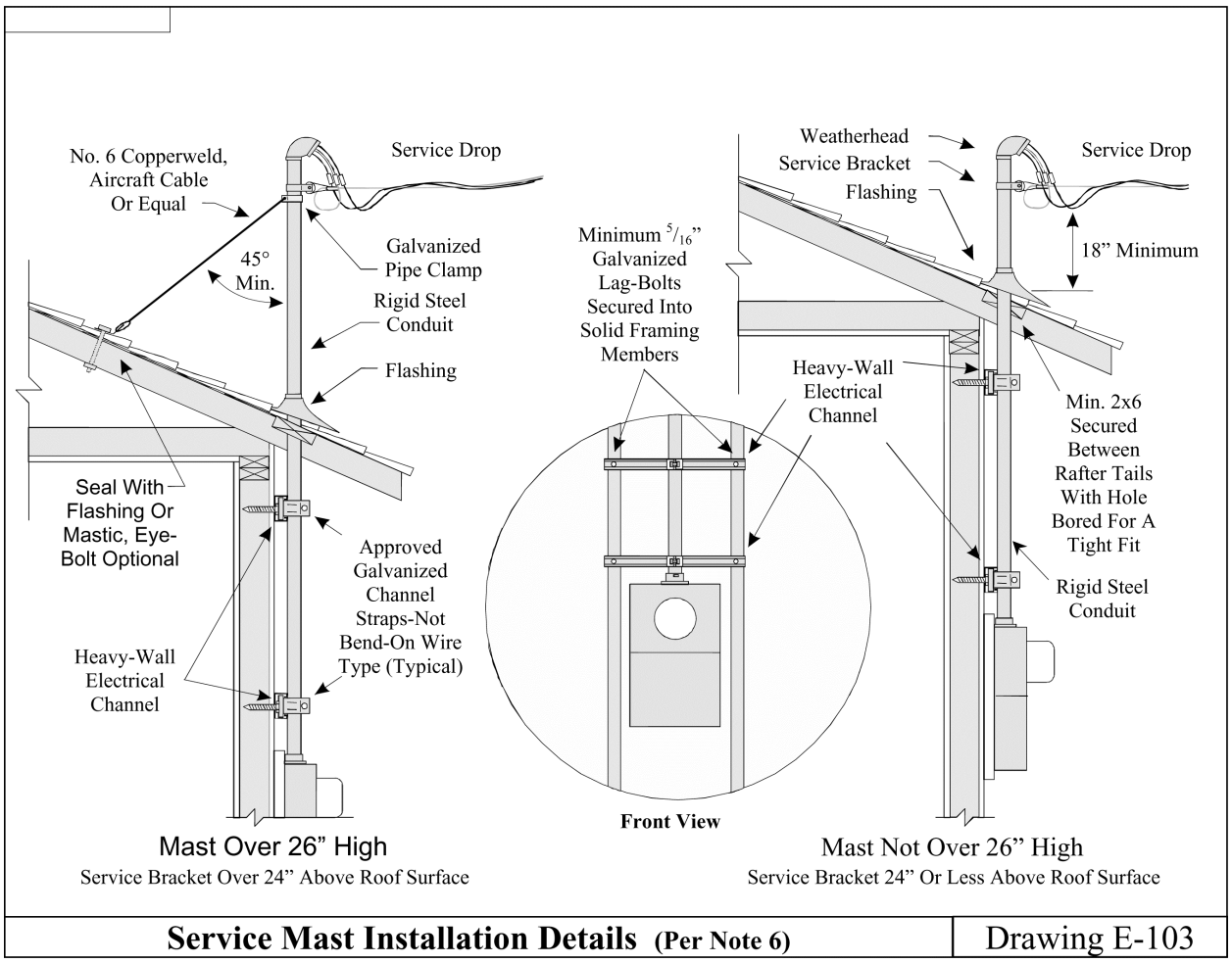


Mast Not Over 26" High - Service Bracket 24" Or Less Above Roof Surface

Service Mast Installation Details	Drawing E-101



Service Mast Installation Details	Drawing E-102



Service Mast Installation Details (Per Note 6) | Drawing E-103

Notes to drawings E-101, E-102, and E-103

(1) An approved roof flashing must be installed on each mast where it passes through a roof. Plastic, nonhardening mastic must be placed between lead-type flashings and the conduit. Neoprene type flashings will also be permitted to be used.

(2) Masts must be braced, secured, and supported in such a manner that no pressure from the attached conductors will be exerted on a roof flashing, meter base, or other enclosures.

(3) Utilization of couplings for a mast is permitted only below the point the mast is braced, secured, or supported. There must be a minimum of two means of support above any couplings used. A properly installed cable or stiff leg type support qualifies as one of the two required means of support.

(4) Except as otherwise required by the serving utility, service mast support guys must be installed if the service drop attaches to the mast more than 24 inches above the roof line or if the service drop is greater than 100 feet in length from the pole or support. Masts for support of other than service drops must comply with this requirement as well.

(5) Intermediate support masts must be installed in an approved manner with methods identical or equal to those required for service masts.

(6) For altered services, where it is impractical to install U bolt mast supports due to interior walls remaining closed, it will be permissible to use other alternate mast support methods such as

heavy gauge, galvanized, electrical channel material that is secured to two or more wooden studs with 5/16 inch diameter or larger galvanized lag bolts.

(7) Conductors must extend at least 18 inches from all mastheads to permit connection to the connecting overhead wiring.

040 Service conductors - Two-family and multiple-occupancy buildings.

(5) Two-family and multiple-occupancy buildings. A second or additional service drop or lateral to a building having more than one occupancy will be permitted to be installed at a location separate from other service drops or laterals to the building provided that all the following conditions are complied with:

(a) Each service drop or lateral must be sized in accordance with the NEC for the calculated load to be served by the conductors;

(b) Each service drop or lateral must terminate in listed metering/service equipment;

(c) Each occupant must have access to the occupant's service disconnecting means;

(d) No more than six service disconnects may be supplied from a single transformer;

(e) All service drops or laterals supplying a building must originate at the same transformer or power supply;

(f) A permanent identification plate must be placed at each service disconnect location that identifies all other service disconnect locations in or on the building, the area or units served by each, the total number of service disconnecting means on the building/structure and the area or units served. If a structure consists of multiple buildings (i.e., by virtue of fire separation), all service disconnects in or on the entire structure must be labeled to identify all service disconnects in or on the structure; and

(g) A permanent identification plate must be placed at each feeder disconnecting means identifying the area or units served if the feeder disconnecting means is remote from the area or unit served.

042 Service conductor - Size and rating.

(6) For other than one- or two-family dwelling services rated up to 400 amperes, if the service conductors have a lesser ampacity than the overcurrent protection, permitted by NEC 230.90 or NEC 310.15, or the equipment rating that they terminate in or on, an identification plate showing the ampacity of the conductors stating: "Service conductor ampacity: _____" must be installed on the service equipment.

043 Wiring methods for 1000 volts, nominal or less.

(7) The installation of service conductors not exceeding 1000 volts, nominal, within a building or structure is limited to the following methods: Galvanized or aluminum rigid metal conduit; galvanized intermediate metal conduit; wireways; busways; auxiliary gutters; minimum schedule 40 rigid polyvinyl chloride conduit; cablebus; or mineral-insulated, metal-sheathed cable (type MI).

(8) Electrical metallic tubing must not be installed as the wiring method for service entrance conductors inside a building. Existing electrical metallic tubing, installed prior to October 1984, which is properly grounded and used for service entrance conductors may be permitted to remain if the conduit is installed in a nonaccessible location and is the proper size for the installed conductors.

(9) In addition to methods allowed in the NEC, the grounded service conductor is permitted to be identified with a yellow jacket or with one or more yellow stripes.

070 Service equipment - Disconnecting means.

(10) ((~~In addition to the requirements of NEC 230.70(A), service equipment, subpanels, and similar electrical equipment must be installed so that they are readily accessible and may not be installed in clothes closets, toilet rooms, or shower rooms. All indoor service equipment and subpanel equipment must have adequate working space and be adequately illuminated.~~

~~(11)~~)) The service disconnecting means must be installed at a readily accessible location in accordance with (a) or (b) of this subsection.

(a) Outside location: Service disconnecting means will be permitted on the building or structure or within sight and within fifteen feet of the building or structure served. The building disconnecting means may supply only one building/structure. The service disconnecting means must have an identification plate with one-half-inch high letters identifying:

(i) The building/structure served; and

(ii) Its function as the building/structure main service disconnect(s).

(b) Inside location: When the service disconnecting means is installed inside the building or structure, it must be located so that the service raceway extends no more than fifteen feet inside the building/structure.

095 Ground-fault protection of equipment.

((~~(12)~~)) (11) Equipment ground-fault protection systems required by the NEC must be tested prior to being placed into service to verify proper installation and operation of the system as determined by the manufacturer's published instructions. This test or a subsequent test must include all service voltage feeders unless the installer can demonstrate, in a manner acceptable to the department, that there are no grounded conductor connections to the feeder(s). A firm having qualified personnel and proper equipment must perform the tests required. A copy of the manufacturer's performance testing instructions and a written performance acceptance test record signed by the person performing the test must be available for the inspector at the time of inspection. The performance acceptance test record must include test details including, but not limited to, all trip settings and measurements taken during the test.

200 Wiring methods exceeding 1000 volts.

((~~(13)~~)) (12) The installation of service conductors exceeding 1000 volts, nominal, within a building or structure must be limited to the following methods: Galvanized rigid metal conduit, galvanized intermediate metal conduit, schedule 80 polyvinyl chloride conduit, metal-clad cable that is exposed for its entire length, cablebus, or busways.

((~~(14)~~)) (13) In addition to methods allowed in the NEC, the grounded service conductor is permitted to be identified with a yellow jacket or with one or more yellow stripes.

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-250 Wiring and protection—Grounding and bonding.

028 (D)(3) Separately derived system with more than one enclosure.

(1) NEC 250.28 (D)(3) is amended to read: Where a separately derived system supplies more than a single enclosure, the system bonding jumper for each enclosure shall be sized in accordance with 250.28 (D)(1) based on the largest ungrounded feeder/tap conductor serving that enclosure, or a single system bonding jumper shall be installed at the source and sized in accordance with 250.28 (D)(1) based on the equivalent size of the largest supply conductor determined by the largest sum of the areas of the corresponding conductors of each set.

052 Grounding electrodes.

(2) Except for mobile/manufactured homes, a concrete encased grounding electrode must be installed and used at each new building or structure that is built upon a permanent concrete foundation. The electrode must comply, with NEC 250.52 (A)(3). Inspection of the electrode may be accomplished by the following methods:

(a) At the time of inspection of other work on the project, providing the concrete encased electrode is accessible for a visual inspection;

(b) At the time of the service inspection providing the installer has provided a method so the inspector can verify the continuity of the electrode conductor along its entire length, with a minimum 20 foot linear span between testing points (e.g., attaching a length of copper wire to one end of the electrode that reaches the location of the grounding electrode conductor that will enable the inspector to measure the resistance with a standard resistance tester). The concrete encased electrode does not have to be accessible for a visual inspection; or

(c) Other method when prior approval, on a job site basis, is given by the inspector.

If a special inspection trip is required to inspect a grounding electrode conductor, a trip fee will be charged for that inspection in addition to the normal permit fee.

Exception: If the concrete encased grounding electrode is not available for connection, a ground ring must be installed per NEC 250 or other grounding electrode installed per NEC 250 verified to measure 25 ohms or less to ground. Resistance verification testing must be performed by an independent firm having qualified personnel and proper equipment. A copy of the testing procedures used and a written resistance test record signed by the person performing the test must be available at the time of inspection. The resistance test record must include test details including, but not limited to, the type of test equipment used, the last calibration date of the test equipment, and all measurements taken during the test.

053 (A)(2) Resistance of rod, pipe, and plate electrodes.

(3) For rod, pipe, and plate electrodes <u>other than those installed in accordance with the exception in subsection (2) of this section</u>, if a ground resistance test is not performed to ensure a resistance to ground of 25 ohms or less, two or more electrodes as specified in NEC 250.52 must be installed a minimum of 6 feet apart. A temporary construction service is not required to have more than one made electrode.

(4) For services only, when multiple buildings or structures are located adjacent, but structurally separate from each other, any installed rod, pipe, or plate electrodes used for those services must be installed so that each building's or structure's electrodes are not less than 6 feet apart from the adjacent building's or structure's electrodes.

064 Grounding electrode conductor installation – Physical protection.

(5) Grounding electrode conductors will be considered to be not exposed to physical damage when the conductor(s) are:

(a) Buried more than 12 inches deep in the earth outside the building's footprint;

(b) Encased or covered by 2 inches of concrete or asphalt;

(c) Located inside the building footprint and protected by the building's structural elements or when inside and determined, by the inspector, to not be subject to physical damage; or

(d) Enclosed by a metal or nonmetallic raceway or enclosure. The raceway or enclosure must be approved to protect from severe physical damage if it is not protected by appropriate physical barriers from contact with vehicles, lawn mowers, and other equipment that might damage the conductor or enclosure.

068 Accessibility.

(6) The termination point of a grounding electrode conductor tap to the grounding electrode conductor must be accessible unless the connection is made using an exothermic or irreversible compression connection.

090 Bonding.

(7) Metallic stubs or valves used in nonmetallic plumbing systems are not required to be bonded to the electrical system unless required by an electrical equipment manufacturer's instructions.

(8) Hot and cold water plumbing lines are not required to be bonded together if, at the time of inspection, the inspector can determine the lines are mechanically and electrically joined by one or more metallic mixing valves.

104(B) Bonding - Other metal piping.

(9) For flexible metal gas piping, installed new or extended from an existing rigid metal piping system, either:

(a) Provide a copy of the manufacturer's bonding instructions to the inspector at the time of inspection and follow those instructions; or

(b) The bonding conductor for the gas system must:

(i) Be a minimum 6 AWG copper; and

(ii) Terminate at:

(A) An accessible location at the gas meter end of the gas piping system on either a solid iron gas pipe or a cast flexible gas piping fitting using a listed grounding connector; and

(B) Either the service equipment enclosure, service grounding electrode conductor or electrode, or neutral conductor bus in the service enclosure.

184 Solidly grounded neutral systems over 1000 volts.

(10) In addition to the requirements of NEC 250.184(A), the following applies for:

(a) Existing installations.

(i) The use of a concentric shield will be allowed for use as a neutral conductor for extension, replacement, or repair, if all of the following are complied with:

(A) The existing system uses the concentric shield as a neutral conductor;

(B) Each individual conductor contains a separate concentric shield sized to no less than thirty-three and one-half percent of the ampacity of the phase conductor for three-phase systems or one hundred percent of the ampacity of the phase conductor for single-phase systems;

(C) The new or replacement cable's concentric shield is enclosed inside an outer insulating jacket; and

(D) Existing cable (i.e., existing cable installed directly in the circuit between the work and the circuit's overcurrent device) successfully passes the following tests:

• A cable maintenance high potential dielectric test. The test must be performed in accordance with the cable manufacturer's instruction or the 2011 NETA maintenance test specifications; and

• A resistance test of the cable shield. Resistance must be based on the type, size, and length of the conductor used as the cable shield using the conductor properties described in NEC Table 8 Conductor Properties.

An electrical engineer must provide a specific certification to the electrical plan review supervisor in writing that the test results of the maintenance high potential dielectric test and the resistance test have been reviewed by the electrical engineer and that the cable shield is appropriate for the installation. The electrical engineer must stamp the certification document with the engineer's stamp and signature. The document may be in the form of a letter or electrical plans.

Testing results are valid for a period of seven years from the date of testing. Cable will not be required to be tested at a shorter interval.

(ii) A concentric shield used as a neutral conductor in a multigrounded system fulfills the requirements of an equipment grounding conductor.

(b) New installations.

(i) New installations do not include extensions of existing circuits.

(ii) The use of the concentric shield will not be allowed for use as a neutral conductor for new installations. A listed separate neutral conductor meeting the requirements of NEC 250.184(A) must be installed.

NEW SECTION

WAC 296-46B-408 Equipment for general use—Switchboards, switchgear, and panelboards. In addition to the requirements of NEC 230.70(A), service equipment, subpanels, and similar electrical equipment must be installed so that they are readily accessible and may not be installed in clothes closets, toilet rooms, or shower rooms.

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-410 Equipment for general use—Luminaires.

010 Luminaires.

(1) All luminaires within an enclosed shower area or within five feet of the waterline of a bathtub must be enclosed, unless specifically listed for such use; these luminaires, with exposed metal parts that are grounded, must be ground fault circuit interrupter protected.

042 Exposed luminaire (fixture) parts.

(2) Replacement luminaires that are directly wired or attached to boxes supplied by wiring methods that do not provide a ready means for grounding and that have exposed conductive parts will be permitted only where the luminaires are provided with ground-fault circuit-interrupter protection and marked "no equipment ground."

056 Protection of conductors and insulation.

(3) Requirements for stranded conductors in NEC 410.56(E) do not apply to branch-circuit conductors.

062 Flexible cord connection of electric discharge luminaires.

((~~(3)~~)) (4) A ground-type attachment plug cap and receptacle connection at the source junction box is not required when the flexible cord complies with NEC 410.62 and the following:

(a) Connection to a source junction box must utilize an approved cable connector or clamp;

(b) The maximum length of the cord for a suspended pendant drop from a permanently installed junction box to a suitable tension take-up device above the pendant luminaire must not exceed 6 feet;

(c) The flexible cord must be supported at each end with an approved cord grip or strain relief connector fitting/device that will eliminate all stress on the conductor connections;

(d) The flexible cord must be a minimum #14 AWG copper;

(e) The flexible cord ampacity must be determined in NEC Table 400.5(A) column A;

(f) The flexible cord must be hard or extra hard usage; and

(g) A vertical flexible cord supplying electric discharge luminaires must be secured to the luminaire support as per NEC 334.30(A).

AMENDATORY SECTION (Amending WSR 08-24-048, filed 11/25/08, effective 12/31/08)

WAC 296-46B-430 Motors, motor circuits, and controllers.

007 Marking on motors and multimotor equipment.

Except as required by the National Electrical Code, there is no requirement for motors to be identified for use or listed/field evaluated by a laboratory. All motors must be manufactured according to National Electrical Manufacturer's Association (NEMA), or International Electrotechnical Commission (IEC) standards for motors except motors that:

(1) Are a component part of equipment listed or field evaluated by a laboratory; or

(2) Are a component part of industrial utilization equipment approved by the department per WAC 296-46B-903.

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-440 Air conditioning and refrigerating equipment.

014 Disconnecting means.

In one- and two-family dwelling units, a disconnecting means is required for the indoor units(s) of a split system HVAC/R system, un-

less the outside unit's disconnecting means is lockable, disconnects the indoor ((~~unit~~)) unit(s), identifies the location of all indoor units, and an indoor disconnecting means is not required by the manufacturer.

AMENDATORY SECTION (Amending WSR 06-05-028, filed 2/7/06, effective 5/1/06)

WAC 296-46B-501 Special occupancies NEC Class I locations.

001 Sewage disposal systems.

(1) Pumping chambers for sewage, effluent, or grinder pumps in on-site and septic tank effluent pump (S.T.E.P.) disposal systems will be considered unclassified when not more than five residential units are connected to the system, residential units are connected to a utility sewage system, or when nonresidential systems have residential loading characteristics and all of the following general installations requirements are complied with:

(a) The pumping chamber must be adequately vented. Venting may be accomplished through the building or structure plumbing vents where the system venting has been approved by the local jurisdiction authority or by a direct two-inch minimum vent to the atmosphere;

(b) Equipment that in normal operation may cause an arc or spark must not be installed in any pumping chamber;

(c) Float switches installed in a pumping chamber must be hermetically sealed to prevent the entrance of gases or vapors;

(d) Junction boxes, conduits and fittings installed in the septic atmosphere must be of a noncorrosive type, installed to prevent the entrance of gases or vapors;

(e) Where a conduit system is installed between the pumping chamber and the control panel, motor disconnect, or power source, an approved sealing method must be installed to prevent the migration of gases or vapors from the pumping chamber, and must remain accessible; and

(f) Wire splices in junction boxes installed in pumping chambers must be suitable for wet locations.

(2) Residential wastewater loading characteristics in a nonresidential installation:

(a) For systems that process less than three thousand five hundred gallons of wastewater per day may be certified by:

(i) An on-site wastewater designer licensed under chapter 18.210 RCW; or

(ii) A professional engineer, engaged in the business of on-site wastewater system design, licensed under chapter 18.43 RCW.

(b) For systems that process three thousand five hundred gallons or more of wastewater per day may be certified by a professional engineer, engaged in the business of on-site wastewater system design, licensed under chapter 18.43 RCW.

Written documentation must be signed and stamped by the designer or engineer and provided to the electrical inspector prior to inspection.

(3) Any residential or nonresidential system that has building or structure floor drains being discharged into the system is classified

as Class I Division 1. Drains from any commercially made tub, shower, basin, sink, or toilet are not considered floor drains.

(4) Pumping chamber access covers can be covered by gravel, light aggregate, or noncohesive granulated soil, and must be accessible for excavation. Access covers that are buried must have their exact location identified at the electrical panel or other prominent location by an identification plate. The authority having jurisdiction for performing electrical inspections must approve the identification plate location.

(5) Indoor grinder pumps installed in chambers with less than fifty gallons capacity are not required to meet the requirements of this section, except for the venting requirements in subsection (1)(a) of this section. Indoor grinder pumps installed in chambers with less than fifty gallons capacity are not classified systems as described in Article 500 NEC.

(6) Secondary treatment effluent pumping chambers such as sand filters are unclassified, and require no special wiring methods.

(7) Inspection approval is required prior to covering or concealing any portion of the septic electrical system, including the pump. New septic and effluent tanks containing electrical wires and equipment must be inspected and approved prior to being loaded with sewage.

(8) On-site sewage disposal systems using pumps must have audible and visual alarms designed to alert the resident of a malfunction. The alarm must be placed on a circuit independent of the pump circuit.

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-514 Special occupancies—Motor fuel dispensing facilities.

001 General.

(1) In addition to the scope included in NEC 514.1, Article 514 NEC must be complied with for all liquefied flammable gas storage or transfer facilities.

003 Classifications of locations.

(2) For the purposes of NEC 514.3 (D)(2), delete Exception No. 1 and No. 2 and replace with:

Dock, pier, or wharf sections that do not support fuel dispensers and may abut a section(s) that supports a fuel dispenser(s) are permitted to be unclassified where documented air space between the sections is provided and where flammable liquids or vapors cannot travel to these sections. See NEC 500.4(A) for documentation requirements.

011 Emergency disconnecting means - Dispensing and service stations.

(3) An emergency disconnecting means or operator must be provided to disconnect the pump or dispensing equipment serving gasoline, volatile flammable liquids, or liquefied flammable gases. The emergency disconnecting means or operator must disconnect all conductors of the circuit supplying all station dispensers and/or pumps (including the grounded conductor) simultaneously from the source(s) of supply.

(4) For installations with only one dispensing device, the emergency disconnecting means/operator may be used to satisfy subsection (3) of this section.

(5) For multicircuit installations, an electrically held normally open contactor operated by a push-button may serve as the disconnecting means to satisfy subsection (3) of this section. If a disconnecting pushbutton is used, the pushbutton may not function as the resetting mechanism for the electrically held contactor. The resetting means must be:

(a) Located at least 15 feet or out of sight from the disconnecting pushbutton;

(b) Installed behind a cover or guard; and

(c) Identified with an identification plate that is substantially black in color.

(6) The disconnecting means satisfying subsection (3) of this section must be labeled with an identification plate, with letters at least 1 inch high, as the emergency disconnecting means. The disconnecting means or operator must be((~~:~~

~~(a)~~)) substantially red in color((~~; and~~

~~(b) For attended facilities - Must be readily accessible and must be located outdoors and within sight of the pump or dispensing equipment it controls; or~~

~~(c) For unattended facilities - Must be readily accessible and must be located within sight, but at least 20 feet from the pump or dispensing equipment it controls~~)).

013 Maintenance and service of dispensing equipment.

(7) The means to remove all external voltage sources for maintenance and service of dispensing equipment required by NEC 514.13 must be capable of isolating each dispenser individually from all external voltage sources including the grounded conductor, while all other dispensers remain operational.

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-600 Special equipment—Electric signs and outline lighting.

001 Electrical signs - General.

(1) All electrical signs and outline lighting, regardless of voltage, must be listed or field evaluated by a testing laboratory accredited by the department to the applicable ANSI UL Standard. Installations will be inspected for compliance with installation instructions and the NEC.

(2) Luminaires in outdoor awnings must be suitable for wet locations and be connected by a wiring method suitable for wet locations.

(3) Fluorescent luminaires must be located at least 6 inches from the awning fabric. Incandescent lamps or luminaires must be located at least 18 inches from the awning fabric. A disconnecting means must be installed per Article 600 NEC.

(4) Listed awning signs must be installed in compliance with the manufacturer's instructions and the NEC.

(5) Retrofitting signs. When listed signs or listed outline lighting are retrofitted to an LED light source, a licensed (01) general electrical contractor or (04) sign contractor using properly certified individuals or properly supervised trainees may make the retrofit in place so long as all the retrofit components and retrofit kit

are listed and installation instructions applicable to the sign for making the retrofit are available for the inspector's use at the time of the inspection and physical access is provided to allow the inspector access to all components of the retrofit kit.

004 Markings.

(6) In addition to the markings required by the NEC, retrofit signs and outline lighting shall be marked with a label, made of a background color contrasting to the listed product, in a location visible during servicing near the listed retrofit subassembly that states, "This equipment contains a retrofit subassembly that may present a risk of electrical hazard. Replace parts only with same type and rating." The label's font must be Arial size 16 bold. This label may be an identification plate as described in WAC 296-46B-100 or an adhesive label approved by the electrical inspector. This label is in addition to any labeling required by the manufacturer's instructions or the UL Standard used to manufacture the retrofit kit.

007 Grounding and bonding.

(7) Remote metal parts of a section sign or outline lighting system only supplied by a remote Class 2 power supply that is listed or is a recognized component in a listed section sign or outline lighting is not required to be bonded to an equipment grounding conductor.

010 Portable or mobile outdoor electrical signs.

(8) A GFCI receptacle outlet that is weatherproof with the supply cord connected must be installed within 6 feet of each portable or mobile electrical sign.

(9) Extension cords are not permitted to supply portable outdoor signs.

(10) All portable outdoor electrical signs must be listed by a qualified electrical testing laboratory accredited by the department.

030 Neon tubing.

(11) NEC 600, Part II, Field-Installed Skeleton Tubing, will apply to the installation of all neon tubing and neon circuit conductors.

(12) Field-installed skeleton tubing is not required to be listed. Installations will be inspected for compliance with installation instructions and the NEC.

NEW SECTION

WAC 296-46B-620 Special equipment—Elevators.

051 Disconnecting means.

In accordance with WAC 296-96-02460, elevator section:

(1) The main line disconnect(s) must be located per NFPA 70, Article 620.51(C) and:

(a) Inside the machine room door on the strike side of the machine or control room door;

(b) Not more than twenty-four inches from the door to the operating handle; and

(c) Be at a height not less than thirty-six inches nor more than sixty-six inches above the finish floor as measured centerline to the disconnect handle.

(2) For multicar machine rooms the switches shall be grouped together as close as possible to that location.

(3) For machine rooms with double swing doors, the doors must swing out and the switch(es) shall be located on the wall adjacent to the hinge side of the active door panel.

(4) Shunt-trip breakers, where provided shall be located in the elevator machine room or control room.

(5) Where shunt-trip breakers are also being used as a main line disconnect, they shall comply with subsections (1) through (3) of this section.

AMENDATORY SECTION (Amending WSR 14-11-075, filed 5/20/14, effective 7/1/14)

WAC 296-46B-690 Solar photovoltaic systems.

002 Definitions.

(1) Building integrated means: Photovoltaic cells, modules, panels, or arrays that are integrated into the outer surface or structure of a building and serve as the outer protective surface of that building, such as the roof, skylights, windows, or facades.

004 Installation.

(2) Support structure or foundation. For the purposes of this section, those portions of the structure support or foundation that are exclusively mechanical and are not part of a bonding or grounding path will not be considered part of the photovoltaic system as defined by this section. Such structural support or foundation may be done by the owner, registered general contractor, or licensed electrical contractor without electrical permit or inspection.

(3) A photovoltaic system design review must be available at the time of the first inspection.

(4) The entity placing a building integrated cell, module, panel, or array is not subject to the requirements for electrical inspection, licensing, or certification so long as the work is limited to the placement and securing of the device and an electrical work permit has been previously obtained for the electrical work related to the equipment by an entity authorized to do that electrical work.

(5) All electrical work, including wiring installation, terminations, etc., necessary to complete the electrical installations must be completed by the entity authorized to do the electrical work (i.e., owner or appropriate electrical contractor).

007 Maximum voltage.

(6) The open-circuit voltage temperature coefficients supplied in the instructions of listed photovoltaic modules will be used to determine the maximum direct current photovoltaic system voltage. Otherwise the voltage will be calculated using Table 690.7 of the NEC. For the purposes of this calculation, a temperature correction factor of 1.25 will be used unless another factor can be justified and is approved by the authority having jurisdiction.

((~~**053 Direct-current photovoltaic power source.**~~

~~(7) All photovoltaic equipment and disconnecting means must be permanently identified as to their purpose, maximum voltages, and type of current within the system with an identification plate. All photovoltaic circuits must be identified at each overcurrent protection device(s) and panel directory(ies).~~))

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-700 Emergency systems.

001 Emergency systems - General.

(1) In all health or personal care facilities defined in this chapter, educational facilities, institutional facilities, hotels, motels, and places of assembly for one hundred or more persons, all exit and emergency lights must be installed in accordance with Article 700 NEC and located as required in standards adopted by the state building code council under chapter 19.27 RCW.

007 Signs.

(2) The sign(s) required in NEC 700.7 must be placed at the service disconnecting means and the meter base if the service disconnecting means and meter base are not located within sight and within 5 feet of each other.

((~~009~~)) 010 Emergency systems - Equipment identification.

(3) All exit and emergency lights, whether or not required by the NEC, must be installed in accordance with Article 700 NEC.

(4) All boxes and enclosures, for Article 700 NEC systems, larger than 6 inches by 6 inches, including transfer switches, generators, and power panels for emergency systems and circuits must be permanently identified with an identification plate that is substantially orange in color, except in existing health care facilities the existing nameplate identification color scheme can be retained for transfer switches, generators, and power panels for existing emergency systems that are not being replaced or modified. All other device and junction boxes for emergency systems and circuits must be substantially orange in color, both inside and outside.

032 Coordination.

(5) The requirements for selective coordination described in NEC 700.32 are not required where the emergency system was installed prior to June 1, 2006. For new emergency systems that are supplied from an existing emergency system installed prior to June 1, 2006, the new portion of the emergency system must comply with NEC 700.32. The ground fault sensing function of overcurrent protective devices will only be required to selectively coordinate with the ground fault sensing functions of other overcurrent protective devices.

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-705 Interconnected electric power production sources. (1) For utility interactive systems, any person making interconnections between a power production source and the utility distribution network must consult the serving utility and is required to meet all additional utility standards.

031 Location of overcurrent protection.

(2) In addition to the requirements of NEC 705.31, electric power production source conductors connected to the supply side of the service disconnecting means must be installed using wiring methods specified for service conductors in WAC 296-46B-230(7). The disconnecting

means providing overcurrent protection for the electric power production source conductors is not required to be grouped with the service disconnecting means for the building or structure. Grounding and bonding must be in accordance with all applicable requirements for an additional service disconnect.

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-900 Electrical plan review.

Definition of occupancies.

(1) Occupancies are defined as follows:

(a) Educational facility refers to a building or portion of a building used primarily for educational purposes by six or more persons at one time for twelve hours per week or four hours in any one day. Educational occupancy includes: Schools (preschool through grade twelve), colleges, academies, universities, and trade schools.

(b) Institutional facility refers to a building or portion of a building used primarily for detention or correctional occupancies where some degree of restraint or security is required for a time period of twenty-four or more hours. Such occupancies include, but are not restricted to: Penal institutions, reformatories, jails, detention centers, correctional centers, and residential-restrained care.

(c) Health or personal care facility. Health or personal care facility refers to buildings or parts of buildings that contain, but are not limited to, facilities that are required to be licensed by the department of social and health services or the department of health (e.g., hospitals, nursing homes, private alcoholism hospitals, private psychiatric hospitals, boarding homes, alcoholism treatment facilities, maternity homes, birth centers or childbirth centers, residential treatment facilities for psychiatrically impaired children and youths, and renal hemodialysis clinics) and medical, dental, or chiropractic offices or clinics, outpatient or ambulatory surgical clinics, and such other health care occupancies where patients who may be unable to provide for their own needs and safety without the assistance of another person are treated.

(i) "Hospital" means any institution, place, building, or agency providing accommodations, facilities, and services over a continuous period of twenty-four hours or more, for observation, diagnosis, or care of two or more individuals not related to the operator who are suffering from illness, injury, deformity, abnormality, or from any other condition for which obstetrical, medical, or surgical services would be appropriate for care or diagnosis.

(ii) "Nursing home," "nursing home unit" or "long-term care unit" means a group of beds for the accommodation of patients who, because of chronic illness or physical infirmities, require skilled nursing care and related medical services but are not acutely ill and not in need of the highly technical or specialized services ordinarily a part of hospital care.

(iii) "Boarding home" means any home or other institution, however named, which is advertised, announced, or maintained for the express or implied purpose of providing board and domiciliary care to seven or more aged persons not related by blood or marriage to the op-

erator. It must not include any home, institution, or section thereof which is otherwise licensed and regulated under the provisions of state law providing specifically for the licensing and regulation of such home, institution, or section thereof.

(iv) "Enhanced service facility (ESF)" means a facility, or a portion of a facility, that provides treatment and services to persons for whom acute inpatient treatment is not medically necessary and who have been determined by the department to be inappropriate for placement in other licensed facilities due to the complex needs that result in behavioral and security issues. For the purposes of this chapter, an enhanced services facility is not an evaluation and treatment facility certified under chapter 71.05 RCW.

(v) "Private alcoholism hospital" means an institution, facility, building, or equivalent designed, organized, maintained, or operated to provide diagnosis, treatment, and care of individuals demonstrating signs or symptoms of alcoholism, including the complications of associated substance use and other medical diseases that can be appropriately treated and cared for in the facility and providing accommodations, medical services, or other necessary services over a continuous period of twenty-four hours or more for two or more individuals unrelated to the operator, provided that this chapter will not apply to any facility, agency, or other entity which is owned and operated by a public or governmental body.

(vi) "Private psychiatric hospital" means a privately owned and operated establishment or institution which: Provides accommodations and services over a continuous period of twenty-four hours or more, and is expressly and exclusively for observing, diagnosing, or caring for two or more individuals with signs or symptoms of mental illness who are not related to the licensee.

(vii) "Maternity home" means any home, place, hospital, or institution in which facilities are maintained for the care of four or more women, not related by blood or marriage to the operator, during pregnancy or during or within ten days after delivery: Provided, however, that this definition will not apply to any hospital approved by the American College of Surgeons, American Osteopathic Association, or its successor.

(viii) "Birth center" or "childbirth center" means a type of maternity home which is a house, building, or equivalent organized to provide facilities and staff to support a birth service provided that the birth service is limited to low-risk maternal clients during the intrapartum period.

(ix) "Ambulatory surgical facility" means a facility, not a part of a hospital, providing surgical treatment to patients not requiring inpatient care in a hospital.

(x) "Hospice care center" means any building, facility, place, or equivalent, organized, maintained, or operated specifically to provide beds, accommodations, facilities, or services over a continuous period of twenty-four hours or more for palliative care of two or more individuals, not related to the operator, who are diagnosed as being in the latter stages of an advanced disease which is expected to lead to death.

(xi) "Renal hemodialysis clinic" means a facility in a building or part of a building which is approved to furnish the full spectrum of diagnostic, therapeutic, or rehabilitative services required for the care of renal dialysis patients (including inpatient dialysis furnished directly or under arrangement). (NEC: Ambulatory Health Care Occupancy.)

(xii) "Medical, dental, and chiropractic clinic" means any clinic or physicians' office where patients are not regularly kept as bed patients for twenty-four hours or more. Electrical plan review is not required.

(xiii) "Residential treatment facility" means a facility licensed and operated twenty-four hours per day to provide health care to persons receiving services for a mental disorder or substance abuse.

(xiv) "Group care facility" means a facility other than a foster-family home maintained or operated for the care of a group of children on a twenty-four-hour basis.

Plan review for educational, institutional, or health care facilities/buildings.

(2) Plan review is a part of the electrical inspection process; its primary purpose is to determine:

(a) That service/feeder conductors are calculated and sized according to the proper NEC or WAC article or section;

(b) The classification of hazardous locations; and

(c) The proper design of emergency and standby systems.

(3) Electrical plan review.

(a) Electrical plan review is not required for:

(i) Low voltage systems;

(ii) Lighting specific projects that do not result in an electrical load ((~~reduction on each~~)) increase on any feeder involved in the project;

(iii) Heating and cooling specific retrofit projects that do not result in an electrical load ((~~reduction on each~~)) increase on any existing feeder involved in the project, provided there is not a corresponding increase in the available fault current in any feeder.

(iv) Stand-alone utility fed services that do not exceed 250 volts, 400 amperes where the project's distribution system does not include:

(A) Emergency systems other than listed unit equipment per NEC 700.12(F);

(B) An essential electrical system defined in NEC 517.2; or

(C) A required fire pump system.

(v) Modifications to existing electrical installations where all of the following conditions are met:

(A) Service or distribution equipment involved is rated not more than 400 amperes and does not exceed 250 volts or for lighting circuits not exceeding 277 volts to ground;

(B) Does not involve emergency systems other than listed unit equipment per NEC 700.12(F);

(C) Does not involve branch circuits or feeders of an essential electrical system as defined in NEC 517.2; and

(D) Service or feeder loads ((~~calculations~~)) are not increased by ((~~5% or less~~)) more than 5% of the rated capacity of the electrical equipment supplying the modified load(s).

(vi) Electric power production source(s) such as solar photovoltaic, fuel cell, or wind electric system(s) with a total rating of 9600 watts or less.

(vii) For installations in (a)(ii), (iii), and (v) of this subsection to be considered, the following must be available to the electrical inspector before the work is initiated:

(A) A clear and adequate description of the project's scope;

(B) A load calculation(s);

(C) What the load changes are, providing both before and after panel schedules as needed; and

(D) Provide information showing that the service and feeder(s) supplying the panel(s) where the work is taking place has adequate capacity for any increased load and has code compliant overcurrent protection for that supply.

(b) Electrical plan review is required for all other new or altered electrical projects in educational, institutional, or health care occupancies defined in this chapter.

(c) If a review is required, the electrical plan must be submitted for review and approval before the electrical work is begun.

(d) Electrical plans.

(i) The plan must be submitted for plan review prior to beginning any electrical inspection. If a plan is rejected during the plan review process, no electrical inspection(s) may proceed until the plan is resubmitted and a conditional acceptance is granted.

(ii) The submitted plan will receive a preliminary review within seven business days after receipt by the department or city authorized to do electrical inspections.

(iii) If the submitted plan:

(A) Is rejected at the preliminary review, no inspection(s) will be made on the project.

(B) Receives conditional acceptance, the permit holder may request a preliminary inspection(s) in writing to the department or city authorized to do electrical inspections. The request must note that the preliminary inspection(s) is conditional and subject to any alterations required from the final plan review process.

(iv) Once the submitted plan has preliminary plan review approval, a copy of the submitted plan must be available on the job site for use by the electrical inspector.

(v) The final approved plan must be available on the job site, for use by the electrical inspector, after it is approved, but no later than prior to the final electrical inspection.

(vi) If the final approved plan requires changes from the conditionally accepted plan, alterations to the project may be required to make the project comply with the approved plan.

(vii) If the installer deviates from the service/feeder design shown on the final approved plan, a supplemental plan must be submitted for review before inspection can proceed. Load reductions or moving branch circuit locations within a panelboard do not require resubmission.

(e) All electrical plans for educational facilities, hospitals, and nursing homes must be prepared by, or under the direction of, a consulting engineer registered under chapter 18.43 RCW, and chapters 246-320, 180-29, and 388-97 WAC and stamped with the engineer's mark and signature.

(f) Refer plans for review to the Electrical Section, Department of Labor and Industries, P.O. Box 44460, Olympia, Washington 98504-4460 or the city authorized to do electrical inspections.

(g) Plans for projects within cities that perform electrical inspections must be submitted to that city for review.

(h) Plans to be reviewed must be legible, identify the name and classification of the facility, clearly indicate the scope and nature of the installation and the person or firm responsible for the electrical plans. The plans must clearly show the electrical installation or alteration in floor plan view, include all switchboard and panelboard schedules and when a service or feeder is to be installed or altered, must include a riser diagram, load calculation, fault current calculation, and interrupting rating of equipment. Where existing

electrical systems are to supply additional loads, the plans must include documentation that proves adequate capacity and ratings. The plans must be submitted with a plan review submittal form available from the department or city authorized to do electrical inspections. Fees must be calculated based on the date the plans are received by the department or city authorized to do electrical inspections.

(i) The department may perform the plan review for new or altered electrical installations of other types of construction when the owner or electrical contractor makes a voluntary request for review. A city authorized to do electrical inspections may require a plan review of any electrical system.

(j) For existing structures where additions or alterations to feeders and services are proposed, NEC 220.87(1) may be used. If NEC 220.87(1) is used, the following is required:

(i) The date of the measurements.

(ii) A statement attesting to the validity of the demand data, signed by a professional electrical engineer or the electrical administrator of the electrical contractor performing the work.

(iii) A diagram of the electrical system identifying the point(s) of measurement.

(iv) Building demand measured continuously on the highest-loaded phase of the feeder or service over a thirty-day period, with the demand peak clearly identified. Demand peak is defined as the maximum average demand over a fifteen-minute interval.

Notes to Tables 900-1 and 900-2.
1. A city authorized to do electrical inspections may require plan review on facility types not reviewed by the department.

Table 900-1
Health or Personal Care Facilities

Health or Personal Care Facility Type	Plan Review Required
Hospital	Yes
Nursing home unit or long-term care unit	Yes
Boarding home	Yes
Assisted living facility	Yes
Private alcoholism hospital	Yes
Private psychiatric hospital	Yes
Maternity home	Yes
Ambulatory surgery facility	Yes
Renal hemodialysis clinic	Yes
Residential treatment facility	Yes
Enhanced service facility	Yes
Adult residential rehabilitation center	Yes

Table 900-2
Educational and Institutional Facilities, Places of Assembly, or Other Facilities

Educational, Institutional, or Other Facility Types	Plan Review Required
Educational	Yes
Institutional	Yes

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-901 General—Electrical work permits and fees.

General.

(1) When an electrical work permit is required by chapter 19.28 RCW or this chapter, inspections may not be made, equipment must not be energized, or services connected unless:

(a) A valid electrical work permit is obtained and posted per subsection (5) of this section;

(b) The classification or type of facility to be inspected and the exact scope and location of the electrical work to be performed are clearly shown on the electrical work permit;

(c) The address where the inspection is to be made is clearly identifiable from the street, road or highway that serves the premises; and

(d) Driving directions are provided for the inspectors' use.

(2) Except as allowed for annual permits and two-family dwellings, an electrical work permit is valid for only one specific job site address.

Permit - Responsibility for.

(3) Each person, firm, partnership, corporation, or other entity must furnish a valid electrical work permit for the installation, alteration, or other electrical work performed or to be performed solely by that entity. When the original purchaser is replaced, another entity may request, in writing, written approval from the chief electrical inspector to take responsibility for the work of the original installing entity under the original permit. If permission is not granted the entity must obtain a new permit for the remaining work.

Two or more entities may never work under the same permit. Each electrical work permit application must be signed by the electrical contractor's administrator (or designee) or the person, or authorized representative of the firm, partnership, corporation, or other entity that is performing the electrical installation or alteration. Permits purchased electronically do not require a handwritten signature. An entity designated to sign electrical permits must provide written authorization of the purchaser's designation when requested by the department or city that is authorized to do electrical inspections.

(4) Permits to be obtained by customers. Whenever a serving electrical utility performs work for a customer under one of the exemptions in WAC 296-46B-925 and the work is subject to inspection, the customer is responsible for obtaining all required permits.

(5) Except as allowed for Class B permits, where an electrical work permit is required, the work permit must be obtained and posted at the job site or the electrical work permit number must be conspicuously posted and identified as the electrical work permit number on or adjacent to the electrical service or feeder panel supplying power to the work prior to beginning any electrical work and at all times until the electrical inspection process is completed.

Exceptions:

(a) For an owner, an electrical work permit for emergency like-in-kind repairs to an existing electrical system(s) must be obtained no later than the next business day after the work is begun.

(b) For an electrical contractor, in a city's jurisdiction where the city is authorized to do electrical inspections and does not have

a provisional permit system, an electrical work permit for emergency like-in-kind repairs to an existing electrical system(s) must be obtained and posted, per the city's requirements at the job site no later than the next business day after the work is begun.

(6) Fees must be paid in accordance with the inspection fee schedule in Part C of this chapter. The amount of the fee due is calculated based on the fee effective at the date payment is made. If the project is required to have an electrical plan review, the plan review fees will be based on the fees effective at the date the plans are received by the department for review. In a city where the department is doing inspections as the city's contractor, a supplemental fee may apply.

Permit - Requirements for.

(7) As required by chapter 19.28 RCW or this chapter, an electrical work permit is required for the installation, alteration, or maintenance of all electrical systems or equipment except for:

(a) Travel trailers;

(b) Class A basic electrical work which includes:

(i) The **like-in-kind replacement** of lamps; a single set of fuses; a single battery smaller than 150 amp hour; contactors, relays, timers, starters, circuit boards, or similar control components; one household appliance; circuit breakers; single-family residential luminaires; a maximum of five snap switches, dimmers, receptacle outlets, thermostats, heating elements, luminaire ballasts or drivers/power supplies for single LED luminaires with an exact same ballast or driver/power supply; component(s) of electric signs, outline lighting, or skeleton neon tubing when replaced on-site by an appropriate electrical contractor and when the sign, outline lighting or skeleton neon tubing electrical system is not modified; one ten horsepower or smaller motor.

For the purposes of this section, "circuit breaker" means a circuit breaker that is used to provide overcurrent protection only for a branch circuit, as defined in NEC 100.

(ii) Induction detection loops described in WAC 296-46B-300(2) and used to control gate access devices;

(iii) Heat cable repair; and

(iv) Embedding premanufactured heat mats in tile grout where the mat is listed by an approved testing laboratory and comes from the manufacturer with preconnected lead-in conductors. All listing marks and lead-in conductor labels must be left intact and visible for evaluation and inspection by the installing electrician and the electrical inspector.

(v) The disconnection of electrical circuits from their overcurrent protection device for the specific purpose of removing the electrical wiring or equipment for disposal.

Unless specifically noted, the exemptions listed do not include: The replacement of an equipment unit, assembly, or enclosure that contains an exempted component or combination of components (e.g., an electrical furnace/heat pump, industrial milling machine, etc.) or any appliance/equipment described in this section for Class B permits.

In the department's jurisdiction, a provisional electrical work permit label may be posted in lieu of an electrical work permit. If a provisional electrical work permit label is used, an electrical work permit must be obtained within two working days after posting the provisional electrical work permit label. See WAC 296-46B-907(2) for provisional label requirements.

(c) The following types of systems and circuits are considered exempt from the requirements for licensing and permitting described in chapter 19.28 RCW. The electrical failure of these systems does not inherently or functionally compromise safety to life or property.

(i) Low-voltage thermocouple derived circuits;

(ii) Low-voltage circuits for residential garage doors and built-in ((~~residential~~)) vacuum systems;

(iii) Low-voltage circuits for underground: Landscape sprinkler systems((~~;~~

~~(iv) Low-voltage circuits for underground landscape lighting; and~~

~~(v) Low-voltage circuits for residential garage doors~~)), landscape lighting, and antennas for wireless animal containment fences.

For these types of systems and circuits to be considered exempt, the following conditions must be met:

(A) The power supplying the installation must be derived from a listed Class 2 power supply;

(B) The installation and termination of line voltage equipment and conductors supplying these systems is performed by appropriately licensed and certified electrical contractors and electricians;

(C) The conductors of these systems do not pass through fire-rated walls, fire-rated ceilings or fire-rated floors in other than residential units; and

(D) Conductors or luminaires are not installed in installations covered by the scope of Article 680 NEC (swimming pools, fountains, and similar installations).

(8) An electrical work permit is required for all installations of telecommunications systems on the customer side of the network demarcation point for projects greater than ten telecommunications outlets. All backbone installations regardless of size and all telecommunications cable or equipment installations involving penetrations of fire barriers or passing through hazardous locations require permits and inspections. For the purposes of determining the inspection threshold for telecommunications projects greater than ten outlets, the following will apply:

(a) An outlet is the combination of jacks and mounting hardware for those jacks, along with the associated cable and telecommunications closet terminations, that serve one workstation. In counting outlets to determine the inspection threshold, one outlet must not be associated with more than six standard four-pair cables or more than one twenty-five-pair cable. Therefore, installations of greater than sixty standard four-pair cables or ten standard twenty-five-pair cables require permits and inspections. (It is not the intent of the statute to allow large masses of cables to be run to workstations or spaces serving telecommunications equipment without inspection. Proper cable support and proper loading of building structural elements are safety concerns. When considering total associated cables, the telecommunications availability at one workstation may count as more than one outlet.)

(b) The installation of greater than ten outlets and the associated cables along any horizontal pathway from a telecommunications closet to work areas during any continuous ninety-day period requires a permit and inspection.

(c) All telecommunications installations within the residential dwelling units of single-family, duplex, and multifamily dwellings do not require permits or inspections. In residential multifamily dwellings, permits and inspections are required for all backbone installa-

tions, all fire barrier penetrations, and installations of greater than ten outlets in common areas.

(d) No permits or inspections are required for installation or replacement of cord and plug connected telecommunications equipment or for patch cord and jumper cross-connected equipment.

(e) Definitions of telecommunications technical terms will come from chapter 19.28 RCW, this chapter, TIA/EIA standards, and NEC.

Inspection and approval.

(9) Requests for inspections.

(a) Requests for inspections must be made no later than three working days after an entity completes its electrical/telecommunications installation or one working day after any part of the installation has been energized, whichever occurs first.

(b) Requests for after hours, weekend inspections, or temporary installations that will be energized for less than 48 hours must be made by contacting the local electrical inspection supervisor at least three working days prior to the requested date of inspection. The portal-to-portal inspection fees required for after hours or weekend inspections are in addition to the cost of the original electrical work permit.

(c) Inspections for annual electrical maintenance permits and annual telecommunications permits may be done on a regular schedule arranged by the permit holder with the department.

(10) Inspections will not be made until all permit fees are paid in full.

Permit - Duration/refunds.

(11) Electrical work permits will expire one year after the date of purchase unless permission is granted by the chief electrical inspector or when the permit is closed or completed by the inspector. Refunds are not available for:

(a) Expired electrical work permits;

(b) Electrical work permit fee items, within the department's jurisdiction, where the electrical installation has begun or an inspection requested for that work; or

(c) The first twenty-five dollars of each permit purchase - Application fee.

All refund requests must be made using the Request for Refund application form.

Permit - Annual telecommunications.

(12) The chief electrical inspector or city that is authorized to do electrical inspections can allow annual permits for the inspection of telecommunications installations to be purchased by a building owner or licensed electrical/telecommunications contractor. The owner's full-time telecommunications maintenance staff, or a licensed electrical/telecommunications contractor(s) can perform the work done under this annual permit. The permit holder is responsible for correcting all installation deficiencies. The permit holder must make available, to the electrical inspector, all records of all the telecommunications work performed and the valid electrical or telecommunications contractor's license numbers for all contractors working under the permit. Upon request, the chief electrical inspector may allow the annual permit to be used for multiple worksites or addresses.

Permit - Annual electrical.

(13) The chief electrical inspector or city that is authorized to do electrical inspections can allow annual permits for the inspection of electrical installations to be purchased by a building owner or licensed electrical contractor. This type of permit is available for

commercial/industrial locations employing a full-time electrical maintenance staff or having a yearly maintenance contract with a licensed electrical contractor. Upon request, the chief electrical inspector may allow the annual permit to be used for multiple worksites or addresses.

The permit holder is responsible for correcting all installation deficiencies. The permit holder must make available, to the electrical inspector, all records of all electrical work performed.

This type of electrical permit may be used for retrofit, replacement, maintenance, repair, upgrade, and alterations to electrical systems at a plant or building location. This type of permit does not include new or increased service or new square footage.

Permit - Temporary construction project installations.

(14) For temporary electrical installations, the department will consider a permit applicant to be the owner per RCW 19.28.261 under the conditions below:

Any person, firm, partnership, corporation, or other entity registered as a general contractor under chapter 18.27 RCW will be permitted to install a single electrical service per address for the purposes of temporary power during the construction phase of a project, when all of the following conditions are met:

(a) The installation is limited to the mounting and bracing of a preassembled pole or pedestal mounted service, the installation of a ground rod or ground plate, and the connection of the grounding electrode conductor to the ground rod or plate;

(b) The total service size does not exceed 200 amperes, 250 volts nominal;

(c) The service supplies no feeders;

(d) Branch circuits not exceeding 50 amperes each are permitted, provided such branch circuits supply only receptacles that are either part of the service equipment or are mounted on the same pole;

(e) The general contractor owns the electrical equipment;

(f) The general contractor has been hired by the property owner as the general contractor for the project;

(g) The general contractor must purchase an electrical work permit for the temporary service, request inspection, and obtain approval prior to energizing the service.

Posting of corrections.

(15) Electrical installations found to be not in compliance with approved standards must be corrected within fifteen calendar days of notification by the department as required in RCW 19.28.101(3). The notifications will be posted electronically on the electrical permit inspection results. A printed copy of the correction notification will be posted by the inspector at the job site for permits not purchased electronically.

AMENDATORY SECTION (Amending WSR 16-23-139, filed 11/22/16, effective 1/1/17)

WAC 296-46B-906 Inspection fees. To calculate inspection fees, the amperage is based on the conductor ampacity or the overcurrent device rating. The total fee must not be less than the number of progress inspection (one-half hour) units times the progress inspection fee rate from subsection (8) of this section, PROGRESS INSPECTIONS.

The amount of the fee due is calculated based on the fee effective at the date of a department assessed fee (e.g., plan review or fee due) or when the electrical permit is purchased.

(1) **Residential.**

(a) **Single- and two-family residential (New Construction).**

Notes:
(1) Square footage is the area included within the surrounding exterior walls of a building exclusive of any interior courts. (This includes any floor area in an attached garage, basement, or unfinished living space.)
(2) "Inspected with the service" means that a separate service inspection fee is included on the same electrical work permit.
(3) "Inspected at the same time" means all wiring is to be ready for inspection during the initial inspection trip.
(4) An "outbuilding" is a structure that serves a direct accessory function to the residence, such as a pump house or storage building. Outbuilding does not include buildings used for commercial type occupancies or additional dwelling occupancies.

(i) First 1300 sq. ft.	$94.20
Each additional 500 sq. ft. or portion of	$30.10
(ii) Each outbuilding or detached garage - Inspected at the same time as a dwelling unit on the property	$39.20
(iii) Each outbuilding or detached garage - Inspected separately	$62.00
(iv) Each swimming pool - Inspected with the service	$62.00
(v) Each swimming pool - Inspected separately	$94.20
(vi) Each hot tub, spa, or sauna - Inspected with the service	$39.20
(vii) Each hot tub, spa, or sauna - Inspected separately	$62.00
(viii) Each septic pumping system - Inspected with the service	$39.20
(ix) Each septic pumping system - Inspected separately	$62.00

(b) **Multifamily residential and miscellaneous residential structures, services and feeders (New Construction).**

Each service and/or feeder

Ampacity	Service/Feeder	Additional Feeder
0 to 200	$101.60	$30.10
201 to 400	$126.30	$62.00
401 to 600	$173.50	$86.30
601 to 800	$222.70	$118.60
801 and over	$317.60	$238.20

(c) **Single or multifamily altered services or feeders including circuits.**

(i) Each altered service and/or altered feeder

Ampacity	Service/Feeder
0 to 200	$86.30
201 to 600	$126.30
601 and over	$190.40

(ii) Maintenance or repair of a meter or mast (no alterations to the service or feeder)	$46.70

(d) **Single or multifamily residential circuits only (no service inspection).**

Note:
Altered or added circuit fees are calculated per panelboard. Total cost of the alterations in an individual panel should not exceed the cost of a complete altered service or feeder of the same rating, as shown in subsection (1) RESIDENTIAL (c) (table) of this section.

(i) 1 to 4 circuits (see note above)	$62.00
(ii) Each additional circuit (see note above)	$6.60

(e) **Mobile homes((,)) and modular homes((~~, mobile home parks, and RV parks~~)).**

(i) Mobile home or modular home service or feeder only	$62.00
(ii) Mobile home service and feeder	$101.60

(f) **Mobile home park sites and RV park sites.**

Note:
For master service installations, see subsection (2) COMMERCIAL/INDUSTRIAL of this section.

(i) First site service or site feeder	$62.00
(ii) Each additional site service; or additional site feeder inspected at the same time as the first service or feeder	$39.20

(2) **Commercial/industrial.**

(a) **New service or feeder, and additional new feeders inspected at the same time (includes circuits).**

Note:
For large COMMERCIAL/INDUSTRIAL projects that include multiple feeders, "inspected at the same time" can be interpreted to include additional inspection trips for a single project. The additional inspections must be for electrical work specified on the permit at the time of purchase. The permit fee for such projects must be calculated using this section. However, the total fee must not be less than the number of progress inspection (one-half hour) units times the progress inspection fee rate from subsection (8) PROGRESS INSPECTIONS of this section.

Ampacity	Service/Feeder	Additional Feeder
0 to 100	$101.60	$62.00
101 to 200	$123.70	$79.00
201 to 400	$238.20	$94.20
401 to 600	$277.60	$110.80
601 to 800	$359.10	$151.00
801 to 1000	$438.40	$182.70
1001 and over	$478.30	$255.00

(b) **Altered services/feeders (no circuits).**

(i) Service/feeder

Ampacity	Service/Feeder
0 to 200	$101.60
201 to 600	$238.20
601 to 1000	$359.10
1001 and over	$398.90

(ii) Maintenance or repair of a meter or mast (no alterations to the service or feeder)	$86.30

(c) **Circuits only.**

Note:
Altered/added circuit fees are calculated per panelboard. Total cost of the alterations in a panel (or panels) should not exceed the cost of a new feeder (or feeders) of the same rating, as shown in subsection (2) COMMERCIAL/INDUSTRIAL (2)(a)(table) above.

(i) First 5 circuits per branch circuit panel	$79.00
(ii) Each additional circuit per branch circuit panel	$6.60
(d) **Over 600 volts surcharge per permit.**	$79.00

(3) **Temporary service(s).**

Notes:
(1) See WAC 296-46B-590 for information about temporary installations.
(2) Temporary stage or concert inspections requested outside of normal business hours will be subject to the portal-to-portal hourly fees in subsection (11) OTHER INSPECTIONS. The fee for such after hours inspections will be the greater of the fee from this subsection or the portal-to-portal fee.

Temporary services, temporary stage or concert productions.

Ampacity	Service/Feeder	Additional Feeder
0 to 60	$54.30	$27.80
61 to 100	$62.00	$30.10
101 to 200	$79.00	$39.20
201 to 400	$94.20	$46.80
401 to 600	$126.30	$62.00
601 and over	$143.30	$71.30

(4) **Irrigation machines, pumps, and equipment.**

Irrigation machines.

(a) Each tower - When inspected at the same time as a service and feeder from (2) COMMERCIAL/INDUSTRIAL	$6.60
(b) Towers - When not inspected at the same time as a service and feeder - 1 to 6 towers	$94.20
(c) Each additional tower	$6.60

(5) **Miscellaneous - Commercial/industrial and residential.**

(a) **A Class 2 low-voltage thermostat** and its associated cable controlling a single piece of utilization equipment or a single furnace and air conditioner combination.

(i) First thermostat	$46.80
(ii) Each additional thermostat inspected at the same time as the first	$14.50

(b) **Class 2 or 3 low-voltage systems and telecommunications systems.** Includes all telecommunications installations, fire alarm, nurse call, energy management control systems, industrial and automation control systems, lighting control systems, and similar Class 2 or 3 low-energy circuits and equipment not included in WAC 296-46B-908 for Class B work.

(i) First 2500 sq. ft. or less	$54.30
(ii) Each additional 2500 sq. ft. or portion thereof	$14.50

(c) **Signs and outline lighting.**

(i) First sign (no service included)	$46.80
(ii) Each additional sign inspected at the same time on the same building or structure	$22.10

(d) **Berth at a marina or dock.**

Note:
Five berths or more will be permitted to have the inspection fees based on appropriate service and feeder fees from section (2) COMMERCIAL/INDUSTRIAL above.

(i) Berth at a marina or dock	$62.00
(ii) Each additional berth inspected at the same time	$39.20

(e) **Yard pole, pedestal, or other meter loops only.**

(i) Yard pole, pedestal, or other meter loops only	$62.00
(ii) Meters installed remote from the service equipment and inspected at the same time as a service, temporary service or other installations	$14.50

(f) **Inspection appointment requested for outside of normal working hours.**

Regular fee plus surcharge of:	$118.60

(g) **Generators.**

Note:
Permanently installed generators: Refer to the appropriate residential or commercial new/altered service or feeder section.

Portable generators: Permanently installed transfer equipment for portable generators	$86.30

(h) **Electrical - Annual permit fee.**

Note:
See WAC 296-46B-901(13).

For commercial/industrial location employing full-time electrical maintenance staff or having a yearly maintenance contract with a licensed electrical contractor. Note, all yearly maintenance contracts must detail the number of contractor electricians necessary to complete the work required under the contract. This number will be used as a basis for calculating the appropriate fee. Each inspection is based on a 2-hour maximum.

	Inspections	Fee
1 to 3 plant electricians	12	$2,284.20
4 to 6 plant electricians	24	$4,571.00
7 to 12 plant electricians	36	$6,856.20
13 to 25 plant electricians	52	$9,143.00
More than 25 plant electricians	52	$11,429.80

(i) **Telecommunications - Annual permit fee.**

Notes:
(1) See WAC 296-46B-901(12).
(2) Annual inspection time required may be estimated by the purchaser at the rate for "OTHER INSPECTIONS" in this section, charged portal-to-portal per hour.

For commercial/industrial location employing full-time telecommunications maintenance staff or having a yearly maintenance contract with a licensed electrical/telecommunications contractor.

2-hour minimum	$188.80
Each additional hour, or portion thereof, of portal-to-portal inspection time	$94.20
(j) **Permit requiring ditch cover inspection only.**	
Each 1/2 hour, or portion thereof	$46.80
(k) **Cover inspection for elevator/conveyance installation. This item is only available to a licensed/registered elevator contractor.**	$79.00
(6) **Carnival inspections.**	
(a) **First carnival field inspection each calendar year.**	
(i) Each ride and generator truck	$22.10
(ii) Each remote distribution equipment, concession, or gaming show	$6.60
(iii) If the calculated fee for first carnival field inspection above is less than $100.50, the minimum inspection fee will be:	$118.60
(b) **Subsequent carnival inspections.**	
(i) First ten rides, concessions, generators, remote distribution equipment, or gaming show	$118.60
(ii) Each additional ride, concession, generator, remote distribution equipment, or gaming show	$6.60
(c) **Concession(s) or ride(s) not part of a carnival.**	
(i) First field inspection each year of a single concession or ride, not part of a carnival	$94.20
(ii) Subsequent inspection of a single concession or ride, not part of a carnival	$62.00
(7) **Trip fees.**	
(a) Requests by property owners to inspect existing installations. (This fee includes a maximum of one hour of inspection time. All inspection time exceeding one hour will be charged at the rate for progressive inspections.)	$94.20
(b) Submitter notifies the department that work is ready for inspection when it is not ready.	$46.80
(c) Additional inspection required because submitter has provided the wrong address or incomplete, improper or illegible directions for the site of the inspection.	$46.80
(d) More than one additional inspection required to inspect corrections; or for repeated neglect, carelessness, or improperly installed electrical work.	$46.80
(e) Each trip necessary to remove a noncompliance notice.	$46.80
(f) Corrections that have not been made in the prescribed time, unless an exception has been requested and granted.	$46.80
(g) Installations that are covered or concealed before inspection.	$46.80
(8) **Progress inspections.**	

Note:
The fees calculated in subsections (1) through (6) of this section will apply to all electrical work. This section will be applied to a permit where the permit holder has requested additional inspections beyond the number supported by the permit fee calculated at the rate in subsections (1) through (6) of this section.

On partial or progress inspections, each 1/2 hour.	$46.80
(9) **Plan review.**	
(a) Plan review fee is 35% of the electrical work permit fee as determined by WAC 296-46B-906.	35%
(b) Plan review submission fee .	$79.00

(c) Supplemental submissions of plans per hour or fraction of an hour of review time.	$94.20
(d) Plan review handling fee.	$22.10
(10) **Out-of-state inspections.**	
(a) Permit fees will be charged according to the fees listed in this section.	
(b) Travel expenses:	
All travel expenses and per diem for out-of-state inspections are billed following completion of each inspection(s). These expenses can include, but are not limited to: Inspector's travel time, travel cost and per diem at the state rate. Travel time is hourly based on the rate in subsection (11) of this section.	
(11) **Other inspections.**	
Inspections not covered by above inspection fees must be charged portal-to-portal per hour:	$94.20
(12) **Variance request processing fee.**	
Variance request processing fee. This fee is nonrefundable once the transaction has been validated.	$94.20
(13) **Class B basic electrical work labels.**	
(a) Block of twenty Class B basic electrical work labels (not refundable).	$258.70
(b) Reinspection of Class B basic electrical work to assure that corrections have been made (per 1/2 hour timed from leaving the previous inspection until the reinspection is completed). See WAC 296-46B-908(5).	$46.80
(c) Reinspection of Class B basic electrical work because of a failed inspection of another Class B label (per 1/2 hour from previous inspection until the reinspection is completed). See WAC 296-46B-908(5).	$46.80
(14) **Provisional electrical work permit labels.**	
Block of twenty provisional electrical work permit labels.	$258.70

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-908 Class B permits.

Class B electrical work permit - Use.

(1) The Class B basic electrical random inspection process (Class B process) may only be used by:

(a) Licensed electrical/telecommunication contractors; or

(b) Health care, commercial, or industrial facilities using an employee(s) who is an appropriately certified electrician(s) after requesting, in writing, and receiving permission from the chief electrical inspector.

Each entity doing work must use a separate label.

(2) The Class B random inspection process is only available if the label is validated and the label or label number is posted before beginning the work.

(a) For Class B labels obtained after February 28, 2013:

(i) Prior to, or immediately upon posting the Class B label/number, the purchaser must use the department's online Class B system to enter the job site information for an unused Class B label obtained by the purchaser. If the posting occurs on a weekend or a federal/state holiday, the purchaser must use the online system to enter the information no later than the first business day after posting the label/number;

(ii) The person identified as the installer on the Class B label must post the Class B label or label number, in a conspicuous permanent manner, at the:

(A) Main service/feeder location supplying the structure or system; or

(B) Purchaser's equipment, or on the equipment conductors if the equipment is not in place.

(iii) The Class B label is valid immediately upon the purchaser completing the job site information in the department's online Class B system, and posting of the Class B label or label number per (a)(ii) of this subsection.

(b) For Class B labels obtained before March 1, 2013:

(i) The purchaser must fully enter the job site information on the job site and contractor portions of the Class B label.

(ii) The person identified as the installer on the Class B label must post the completed job site copy, in a conspicuous permanent manner, at the:

(A) Main service/feeder location supplying the structure or system;

(B) Purchaser's equipment, or on the conductors if the equipment is not available.

(iii) The purchaser must return the contractor copy to the Department of Labor and Industries, Electrical Section, Chief Electrical Inspector, P.O. Box 44460, Olympia, WA 98504-4460 within fifteen working days after the job site portion of the Class B installation label is affixed.

(iv) The Class B label is valid immediately upon posting on the job site.

(3) Class B labels will be sold in blocks and are nonrefundable and nontransferable.

(4) Class B label installations will be inspected on a random basis as determined by the department.

(5) A progress inspection fee is required for any inspection required when a correction(s) is issued as a result of the inspection of a Class B label.

(6) Any entity using the Class B process may be audited for compliance with the provisions for purchasing, inspection, reporting of installations, and any other requirement of usage.

(7) A separate label is required for each line item listed below in subsection (10) of this section. For example, if the work includes an item under subsection (10)(a) and (b)(i) of this section, two labels are required.

(8) An entity using a Class B basic inspection label is restricted to using no more than two labels per week per job site.

(9) All Class B work must be completed within fifteen days after the label is validated. If the work is not completed, another Class B may be posted.

Except that, in a one- or two-family residential structure, a label is valid for ninety days after the label is validated, so long as all work described on the label is performed by the purchaser.

(10) Class B work includes the following:

(a) Extension of not more than one branch electrical circuit limited to 120 volts and 20 amps each where:

(i) No cover inspection is necessary. For the purposes of this section, cover inspection does not include work covered by any surface that may be removed for inspection without damaging the surface; and

(ii) The extension does not supply more than two outlets as defined by the NEC.

(b) Single like-in-kind replacement of:

(i) A motor larger than 10 horsepower; or

(ii) The internal wiring of a furnace, air conditioner, refrigeration unit or household appliance; or

(iii) An electric/gas/oil furnace not exceeding 240 volts and 100 amps and associated Class 2 low voltage wiring (i.e., altered and/or new low-voltage control wiring from the furnace to an existing and/or new thermostat, heat pump, air conditioner, condenser, etc.), when the furnace is connected to an existing branch circuit. For the purposes of this section, a boiler is not a furnace; or

(iv) An individually controlled electric room heater (e.g., baseboard, wall, fan forced air, etc.), air conditioning unit, heat pump unit, or refrigeration unit not exceeding 240 volts, 40 minimum circuit amps and associated Class 2 low voltage wiring when the unit is connected to an existing branch circuit; or

(v) Circuit modification required to install not more than five residential load control devices in a residence where installed as part of an energy conservation program sponsored by an electrical utility and where the circuit does not exceed 240 volts and 40 amps; or

(vi) A single, line-voltage flexible supply whip associated with (b)(i), (iii), or (iv) of this subsection, not over 6 feet in length, provided there are no modifications to the branch circuit/feeder load being supplied by the whip. May be done on the same Class B label with the replacement unit if done at the same time.

(c) The following low voltage systems:

(i) Repair and replacement of devices not exceeding 100 volt-amperes in Class 2, Class 3, or power limited low voltage systems in one- and two-family dwellings; or

(ii) Repair and replacement of devices not exceeding 100 volt-amperes in Class 2, Class 3, or power limited low voltage systems in other buildings, provided the equipment is not for fire alarm or nurse call systems and is not located in an area classified as hazardous by the NEC; or

(iii) The installation of Class 2 or 3 device(s) or wiring for thermostat, audio, security, burglar alarm, intercom, amplified sound, public address, or access control systems where the installation does not exceed twenty devices or five thousand square feet. This does not include fire alarm, nurse call, lighting control, industrial automation/control or energy management systems; or

(iv) Telecommunications cabling and equipment requiring inspection in RCW 19.28.470 where the installation does not exceed twenty devices or five thousand square feet;

(d) The replacement of not more than ten standard receptacles with GFCI or AFCI receptacles;

(e) The conversion of not more than ten snap switches to dimmers or occupancy sensors for the use of controlling a luminaire(s) conversion;

(f) The like-in-kind replacement of a maximum of twenty: Paddle fans, luminaires not exceeding 277 volts and 20 amperes; snap switches, dimmers, receptacle outlets, line voltage thermostats, heating elements, luminaire ballasts, or drivers/power supplies for single LED luminaires;

(g) The replacement of not more than two luminaires with paddle fans if a listed fan box has been previously installed to support the luminaires;

(h) The replacement of not more than four batteries rated not larger than 150 amp hours each that supply power to a single unit of equipment (e.g., uninterruptable power supply, photovoltaic storage system, control panel, etc.);

(i) The installation or repair of equipment powered by a stand-alone solar photovoltaic source where the:

(i) Electrical equipment requires no field assembly except for the attachment and electrical connection of the solar photovoltaic source to the equipment, the installation and attachment to a grounding electrode, and the placement of the equipment on a pad, pole, or other structure;

(ii) Solar photovoltaic source and the equipment operates at less than 15 volts DC;

(iii) Solar photovoltaic source is the only source of external power; and

(iv) Equipment and the solar photovoltaic source are appropriately labeled as a single unit. The label must be by an approved electrical testing laboratory or for equipment used for traffic control labeled according to WAC 296-46B-010(21).

(j) The installation or replacement of a single electric sign on an existing single 120-volt, 20-amp maximum branch circuit.

(11) Class B basic electrical work does not include any work in:

(a) Areas classified as Class I, Class II, Class III, or Zone locations per NEC 500; or

(b) Areas regulated by NEC 517 or 680; or

(c) Any work where electrical plan review is required; or

(d) Fire alarm, nurse call, lighting control, industrial automation/control or energy management systems.

AMENDATORY SECTION (Amending WSR 16-23-139, filed 11/22/16, effective 1/1/17)

WAC 296-46B-909 Electrical/telecommunications contractor's license, administrator certificate and examination, master electrician certificate and examination, electrician certificate and examination, copy, and miscellaneous fees.

Notes: (1) The department will deny renewal of a license, certificate, or permit if an individual owes money as a result of an outstanding final judgment(s) to the department or is in revoked status. The department will deny application of a license, certificate, or permit if an individual is in suspended status or owes money as a result of an outstanding final judgment(s) to the electrical program.
(2) Certificates may be prorated for shorter renewal periods in one-year increments. Each year or part of a year will be calculated to be one year.
(3) The amount of the fee due is calculated based on the fee effective at the date payment is made.

(1) **General or specialty contractor's license per twenty-four month period. (Nonrefundable after license has been issued.)**	
(a) **Initial application or renewal made in person, by mail, or by fax**	$277.60
(b) **Renewal fully completed using the online web process**	$240.10
(c) **Reinstatement of a general or specialty contractor's license after a suspension**	$56.20
(2) **Master electrician/administrator/electrician/trainee certificate.**	
(a) **Examination application (nonrefundable)**	

Administrator certificate examination application. (Required only for department administered examinations.) (Not required when testing with the department's contractor.)	$34.70
(b) **Examination fees (nonrefundable)**	
Note: Normal examination administration is performed by a state authorized contractor. The fees for such examinations are set by contract with the department. For written examinations administered by the department, use the following fee schedule.	
(i) Master electrician or administrator first-time examination fee (when administered by the department)	$83.80
(ii) Master electrician or administrator retest examination fee (when administered by the department)	$98.20
(iii) Journey level or specialty electrician examination fee (first test or retest when administered by the department)	$63.10
(iv) Certification examination review fee	$129.90
(c) **Original certificates (nonrefundable after certificate has been issued)**	
(i) Electrical administrator original certificate (except **09** telecommunication)	$125.60
(ii) Telecommunications administrator original certificate (for **09** telecommunications)	$83.50
(iii) Master electrician exam application (includes original certificate and application processing fee) **($34.70 is nonrefundable after application is submitted)**	$160.60
(iv) Journey level ((~~or~~)), specialty, or reciprocal electrician application (includes original certificate and application processing fee) **($34.70 is nonrefundable after application is submitted)**	$90.00
(v) Training certificate	
(A) Initial application made in person, by mail, or by fax	$44.10
(B) Initial application fully completed online using the online web process	$37.90
(C) 0% supervision modified training certificate. Includes trainee update of hours (i.e., submission of affidavit of experience) **($53.40 is nonrefundable after application is submitted)**	$80.30
(D) 75% supervision modified training certificate.	$53.40
(E) Unsupervised training certificate as allowed by RCW 19.28.161 (4)(b).	$26.40
(d) **Certificate renewal (nonrefundable)**	
(i) Master electrician or administrator certificate renewal	
(A) Renewal made in person, by mail, or by fax	$158.70
(B) Renewal fully completed using the online web process	$137.90
(ii) Telecommunications **(09)** administrator certificate renewal	
(A) Renewal made in person, by mail, or by fax	$105.70
(B) Renewal fully completed using the online web process	$91.20
(iii) Late renewal of master electrician or administrator certificate	
(A) Renewal made in person, by mail, or by fax	$317.50
(B) Renewal fully completed using the online web process	$275.90
(iv) Late renewal of telecommunications **(09)** administrator certificate	
(A) Renewal made in person, by mail, or by fax	$211.60
(B) Renewal fully completed using the online web process	$182.50
(v) Journey level or specialty electrician certificate renewal	
(A) Renewal made in person, by mail, or by fax	$83.50

(B) Renewal fully completed using the online web process	$72.70
(vi) Late renewal of journey level or specialty electrician certificate	
(A) Renewal made in person, by mail, or by fax	$167.20
(B) Renewal fully completed using the online web process	$145.50
(vii) Trainee update of hours ((~~outside of renewal period (i.e., submission of affidavit of experience outside of the timeline in WAC 296-46B-942 (8)(d))~~)) submitted more than 30 days after expiration of a training certificate	$53.40
(viii) Trainee certificate renewal	
(A) Renewal made in person, by mail, or by fax	$53.40
(B) Renewal fully completed using the online web process when the affidavit of experience is submitted per WAC 296-46B-942 (8)(d)	$46.60
(ix) Late trainee certificate renewal	
(A) Renewal made in person, by mail, or by fax	$74.90
(B) Renewal fully completed using the online web process	$65.20
(e) **Certificate - Reinstatement (nonrefundable)**	
(i) Reinstatement of a suspended master electrician or administrator's certificate (in addition to normal renewal fee)	$56.20
(ii) Reinstatement of suspended journey level, or specialty electrician certificate (in addition to normal renewal fee)	$26.40
(f) **Assignment/unassignment of master electrician/ administrator designation (nonrefundable)**	$41.60
(3) **Certificate/license.**	
(a) Replacement for lost or damaged certificate/license. (Nonrefundable.)	$18.20
(b) Optional display quality General Master Electrician certificate.	$29.60
(4) **Continuing education courses or instructors. (Nonrefundable.)**	
(a) If the course or instructor review is performed by the electrical board or the department	
The course or instructor review	$53.50
(b) If the course or instructor review is contracted out by the electrical board or the department	
(i) Continuing education course or instructor submittal and approval (per course or instructor)	As set in contract
(ii) Applicant's request for review, by the chief electrical inspector, of the contractor's denial	$130.20
(5) **Copy fees. (Nonrefundable.)**	
(a) **Certified copy of each document (maximum charge per file):**	$59.10
(i) First page:	$26.40
(ii) Each additional page:	$2.10
(b) RCW or WAC printed document:	$5.80
(6) **Training school program review fees. Initial training school program review fee. (Nonrefundable.)**	
(a) Initial training school program review fee submitted for approval. Valid for three years or until significant changes in program content or course length are implemented (see WAC 296-46B-971(4)).	$615.30
(b) Renewal of training school program review fee submitted for renewal. Valid for 3 years or until significant changes in program content or course length are implemented (see WAC 296-46B-971(4)).	$307.60

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-915 Civil penalty schedule.

Notes: Each day that a violation occurs on a job site may be a separate offense.
Once a violation of chapter 19.28 RCW or chapter 296-46B WAC becomes a final judgment, any additional violation within three years becomes a "second" or "additional" offense subject to an increased penalty as set forth in the following tables.
In case of serious noncompliance or a serious violation of the provisions of chapter 19.28 RCW or as described in WAC 296-46B-990, the department may double the penalty amount, up to ten thousand dollars shown in subsections (1) through (13) of this section.
A person, firm, partnership, corporation or other entity who violates a provision of chapter 19.28 RCW or chapter 296-46B WAC is liable for a civil penalty based upon the following schedule.

(1) **Offering to perform, submitting a bid for, advertising, installing or maintaining cables, conductors or equipment:**

(a) That convey or utilize electrical current without having a valid electrical contractor's license; or

(b) Used for information generation, processing, or transporting of signals optically or electronically in telecommunications systems without having a valid telecommunications contractor's license.

First offense:	$((~~500~~)) 1,000
Second offense:	$((~~1,500~~)) 2,000
Third offense:	$3,000
Each offense thereafter:	$((~~6,000~~)) 10,000

(2) **Employing an individual for the purposes of chapter 19.28 RCW who does not possess a valid certificate of competency or training certificate to do electrical work.**

First offense:	$250
Each offense thereafter:	$500

(3) **Performing electrical work without having a valid certificate of competency or electrical training certificate.**

(a) Failing to visibly display a certificate (must possess a valid, active certificate).

First offense:	$50
Each offense thereafter:	$100

(b) Performing electrical work while not possessing a valid certificate or working outside the scope of a certificate.

First offense:	$250
Each offense thereafter:	$500

(4) **Employing electricians and electrical trainees for the purposes of chapter 19.28 RCW in an improper ratio. Contractors found to have violated this section three times in a three-year period must be the subject of an electrical audit in accordance with WAC 296-46B-975.**

First offense:	$250
Each offense thereafter:	$500

(5) **Failing to provide proper supervision to an electrical trainee as required by chapter 19.28 RCW. Contractors found to have violated this section three times in a three-year period must be the subject of an electrical audit in accordance with WAC 296-46B-975.**

First offense:	$250
Each offense thereafter:	$500

(6) **Working as an electrical trainee without proper supervision as required by chapter 19.28 RCW.**

First offense:	$50
Second offense:	$250
Each offense thereafter:	$500

(7) **Offering, bidding, advertising, or performing electrical or telecommunications installations, alterations or maintenance outside the scope of the firm's specialty electrical or telecommunications contractors license.**

First offense:	$500
Second offense:	$1,500
Third offense:	$3,000

Each offense thereafter: $6,000

(8) **Selling or exchanging electrical equipment associated with spas, hot tubs, swimming pools or hydromassage bathtubs which are not listed by an approved laboratory.**

First offense: $500

Second offense: $1,000

Each offense thereafter: $2,000

Definition:
The sale or exchange of electrical equipment associated with hot tubs, spas, swimming pools or hydromassage bathtubs includes to: "Sell, offer for sale, advertise, display for sale, dispose of by way of gift, loan, rental, lease, premium, barter or exchange."

(9) **Covering or concealing installations prior to inspection.**

First offense: $250

Second offense: $1,000

Each offense thereafter: $2,000

(10) **Failing to make corrections within fifteen days of notification by the department.**

Exception:
Where an extension has been requested and granted, this penalty applies to corrections not completed within the extended time period.

First offense: $250

Second offense: $1,000

Each offense thereafter: $2,000

(11) **Failing to get an inspection or obtain an electrical/ telecommunications work permit or post a provisional electrical work permit label prior to beginning the electrical/ telecommunications installation or alteration.**

Exception:
In cases of emergency repairs, for owners, to existing electrical/ telecommunications systems, this penalty will not be charged if the permit is obtained and posted no later than the business day following beginning work on the emergency repair.

(a) Standard/provisional permit offenses:

First offense: $250

Second offense: $1,000

Each offense thereafter: $2,000

(b) Class B offenses:

Failure to post a Class B label or number for Class B eligible work:

First offense: $100

Second offense: $250

Each offense thereafter: $1,000

(c) For other Class B offenses:

First offense: $100

Second offense: $250

Each offense thereafter: $1,000

(12) **Violating chapter 19.28 RCW duties of the electrical/ telecommunications administrator or master electrician.**

(a) Failing to be a member of the firm or a supervisory employee and must be available during working hours to carry out the duties of an administrator or master electrician.

First offense: $1,000

Second offense: $1,500

Each offense thereafter: $3,000

(b) Failing to ensure that all electrical work complies with the electrical installation laws and rules of the state.

First offense: $100

Second offense: $250

Third offense: $1,000

Each offense thereafter: $3,000

(c) Failing to ensure that the proper electrical safety procedures are used.

First offense: $500

Second offense: $1,500

Each offense thereafter:	$3,000
(d) Failing to ensure that inspections are obtained and that all electrical labels, permits, and certificates required to perform electrical work are used.	
Standard/provisional permit offenses:	
First offense:	$250
Each offense thereafter:	$500
Class B offenses:	
First offense:	$100
Second offense:	$250
Each offense thereafter:	$1,000
(e) Failing to ensure that all electrical licenses, required to perform electrical work are used (i.e., work performed must be in the allowed scope of work for the contractor).	
First offense:	$500
Second offense:	$1,500
Third offense:	$3,000
Each offense thereafter:	$6,000
(f) Failing to see that corrective notices issued by an inspecting authority are complied with within fifteen days.	
Exception: Where an extension has been requested and granted, this penalty applies to corrections not completed within the extended time period.	
First offense:	$250
Second offense:	$1,000
Each offense thereafter:	$2,000
(g) Failing to notify the department in writing within ten days if the master electrician or administrator terminates the relationship with the electrical contractor.	
First offense:	$500
Second offense:	$1,000
Each offense thereafter:	$3,000
(13) **Causing or failing to correct a serious violation.**	
A serious violation is a violation of chapter 19.28 RCW or 296-46B WAC that creates a hazard of fire or a danger to life safety.	
First offense:	$1,000
Second offense:	$3,000
Each offense thereafter:	$5,000
(14) **Violating any of the provisions of chapter 19.28 RCW or chapter 296-46B WAC which are not identified in subsections (1) through (12) of this section.**	
(a) RCW 19.28.161 through 19.28.271 and the rules developed pursuant to them.	
First offense:	$250
Each offense thereafter:	$500
(b) All other chapter 19.28 RCW provisions and the rules developed pursuant to them.	
First offense:	$250
Second offense:	$750
Each offense thereafter:	$2,000

AMENDATORY SECTION (Amending WSR 18-03-158, filed 1/23/18, effective 2/23/18)

WAC 296-46B-920 Electrical/telecommunications license/certificate types and scope of work. (1) **General electrical (01):** A general electrical license and/or certificate encompasses all phases and all types of electrical and telecommunications installations and minor

plumbing under RCW 18.106.150. For the purposes of RCW 18.106.150, the like-in-kind replacement includes the appliance or any component part of the appliance (e.g., such as, but not limited to, the thermostat in a water heater).

Specialties.

(2) All specialties listed in this subsection may perform the electrical work described within their specific specialty as allowed by the occupancy and location described within the specialty's scope of work. Except for residential (02), the scope of work for these specialties does not include plumbing work regulated under chapter 18.106 RCW. See RCW 18.106.150 for plumbing exceptions for the residential (02) specialty. For the purposes of RCW 18.106.150, the like-in-kind replacement includes the appliance or any component part of the appliance (e.g., such as, but not limited to, the thermostat in a water heater). **Specialty** (limited) electrical licenses and/or certificates are as follows:

(a) **Residential (02):** Limited to the telecommunications, low voltage, and line voltage wiring of one- and two-family dwellings, or multifamily dwellings of types III, IV or V construction when there are not more than six stories of multifamily dwellings of types III, IV or V construction above grade or above types I or II construction. All wiring is limited to nonmetallic sheathed cable, except for services and/or feeders, exposed installations where physical protection is required, and for wiring buried below grade.

(i) This specialty also includes the wiring for ancillary structures such as, but not limited to: Appliances, equipment, swimming pools, septic pumping systems, domestic water systems, limited energy systems (e.g., doorbells, intercoms, fire alarm, burglar alarm, energy control, HVAC/refrigeration, etc.), multifamily complex offices/garages, site lighting when supplied from the residence or ancillary structure, and other structures directly associated with the functionality of the residential units.

(ii) This specialty does not include wiring of:

(A) Any portion of any occupancy of types I or II construction; or

(B) Occupancies defined in WAC 296-46B-900(1), or commercial occupancies such as: Motels, hotels, offices, assisted living facilities, or stores; or

(C) Services, generators, HVAC/refrigeration equipment, fire pumps or other equipment that serve other than one- and two-family dwellings, or multifamily dwellings of types III, IV, or V construction or ancillary structures; or

(D) Interconnected electric power production sources not connected to equipment that supplies one- and two-family dwellings, or multifamily dwellings of types III, IV or V construction, or ancillary structures; or

(E) Any portion of wiring for conveyances regulated under chapter 70.87 RCW serving more than one residential dwelling unit.

(iii) For the purposes of this section, classification of types of construction are as determined by the local building official.

(iv) See RCW 18.106.150 for plumbing exceptions for the residential (02) specialty.

(b) **Pump and irrigation (03):** Limited to the electrical connection of circuits, feeders, controls, low voltage, related telecommunications, and services to supply: Domestic water systems and public water systems include but are not limited to pumps, pressurization, fil-

tration, treatment, or other equipment and controls, and irrigation water pumps, circular irrigating system's pumps and pump houses.

This specialty may also perform the work defined in (c) of this subsection.

Also see RCW 18.106.010 (10)(c).

(c) **Domestic pump (03A):** Limited to the extension of a branch circuit, which is supplied and installed by others, to signaling circuits, motor control circuits, motor control devices, and pumps which do not exceed 7 1/2 horsepower at 250 volts AC single phase input power, regardless of motor controller output or motor voltage/phase, used in residential potable water or residential sewage disposal systems. Domestic water systems and public water systems include but are not limited to pumps, pressurization, filtration, treatment, or other equipment and controls.

Also see RCW 18.106.010 (10)(c).

(d) **Signs (04):** Limited to placement and connection of signs and outline lighting, the electrical supply, related telecommunications, controls and associated circuit extensions thereto; and the installation of a maximum 60 ampere, 120/240 volt single phase service to supply power to a remote sign only. This specialty may service, maintain, repair, or install retrofit kits within housings of existing exterior luminaires that are mounted on a pole or other structure with like-in-kind or retrofit kit components.

(i) Electrical licensing/certification is not required to:

(A) Clean the nonelectrical parts of an electric sign;

(B) Form or pour a concrete pole base used to support a sign;

(C) Operate machinery used to assist an electrician in mounting an electric sign or sign supporting pole; or

(D) Assemble the structural parts of a billboard.

(ii) Electrical licensing/certification is required to: Install, modify, or maintain a sign, sign supporting pole, sign face, sign ballast, lamp socket, lamp holder, disconnect switch, or any other part of a listed electric sign.

(e) **Limited energy system (06):** Limited to the installation of signaling and power limited circuits and related equipment. This specialty is restricted to low-voltage circuits. This specialty includes the installation of telecommunications, HVAC/refrigeration low-voltage wiring, fire protection signaling systems, intrusion alarms, energy management and control systems, industrial and automation control systems, lighting control systems, commercial and residential amplified sound, public address systems, and such similar low-energy circuits and equipment in all occupancies and locations.

(i) For the purposes of this section, when a line voltage connection is removed and reconnected to a replacement component located inside the control cabinet, the replacement must be like-in-kind or replaced using the equipment manufacturer's authorized replacement component. The line voltage circuit is limited to 120 volts 20 amps maximum and must have a means of disconnect.

(ii) The limited energy systems (06) specialty may repair or replace line voltage connections terminated inside the cabinet to power supplies internal to the low voltage equipment provided there are no modifications to the characteristics of the branch circuit/feeder load being supplied by the circuit.

(iii) The limited energy systems (06) specialty may not replace or modify the line voltage circuit or cabling or alter the means of connection of the line voltage circuit to the power supply or to the control cabinet.

Limited energy electrical contractors may perform all telecommunications work under their specialty **(06)** electrical license and administrator's certificate.

(f) **HVAC/refrigeration systems:**

(i) See WAC 296-46B-100 for specific HVAC/refrigeration definitions.

(ii) For the purposes of this section when a component is replaced, the replacement must be like-in-kind or made using the equipment manufacturer's authorized replacement component.

(iii) The HVAC/refrigeration specialties described in (f)(v) and (vi) of this subsection may:

(A) Install HVAC/refrigeration: Telecommunications, Class 2 low-voltage control circuit wiring/components in all residential occupancies;

(B) Install, repair, replace, and maintain line voltage components within HVAC/refrigeration equipment. Such line voltage components include product illumination luminaires installed within and powered from the HVAC/refrigeration system (e.g., reach-in beverage coolers, frozen food cases, produce cases, etc.) and new or replaced factory authorized accessories such as internally mounted outlets;

(C) Repair, replace, or maintain the internal components of the HVAC/refrigeration equipment disconnecting means or controller so long as the disconnecting means or controller is not located within a motor control center or panelboard;

(D) Install, repair, replace, and maintain short sections of raceway to provide physical protection for low-voltage cables. For the purposes of this section a short section cannot mechanically interconnect two devices, junction boxes, or other equipment or components; and

(E) Repair, replace, or maintain line voltage flexible supply whips not over six feet in length, provided there are no modifications to the characteristics of the branch circuit/feeder load being supplied by the whip. There is no limitation on the whip raceway method (e.g., metallic replaced by nonmetallic).

(iv) The HVAC/refrigeration specialties described in (f)(v) and (vi) of this subsection may not:

(A) Install line voltage controllers or disconnect switches external to HVAC/refrigeration equipment;

Exception: If HVAC/R equipment is being replaced, this specialty may remove and replace a disconnecting means enclosure mounted on the surface of the HVAC/R equipment with a like-in-kind disconnecting means enclosure rated not more than 20 amperes and 120 volts using the existing wiring method. When performing this work, this specialty may install up to ten feet of raceway to provide physical protection for nonmetallic cables, but the raceway may not terminate in a panelboard.

(B) Install, repair, replace, or maintain:

• Integrated building control systems, other than HVAC/refrigeration systems;

• Single stand-alone line voltage equipment or components (e.g., heat cable, wall heaters, radiant panel heaters, baseboard heaters, contactors, motor starters, and similar equipment) unless the equipment or component:

Is exclusively controlled by the HVAC/refrigeration system and requires the additional external connection to a mechanical system(s) (e.g., connection to water piping, gas piping, refrigerant system, ducting for the HVAC/refrigeration system, gas fireplace flume, ventilating systems, etc. (i.e., as in the ducting connection to a bathroom fan)). The external connection of the equipment/component to the mechanical system must be required as an integral component allowing the operation of the HVAC/refrigeration system; or

Contains a HVAC/refrigeration mechanical system(s) (e.g., water piping, gas piping, refrigerant system, etc.) within the equipment (e.g., "through-the-wall" air conditioning units, self-contained refrigeration equipment, etc.);

• Luminaires that serve as a building or structure lighting source, even if mechanically connected to a HVAC/refrigeration system (e.g., troffer luminaire used as a return air device, lighting within a walk-in cooler/freezer used for personnel illumination);

• Raceway/conduit systems;

• Line voltage: Service, feeder, or branch circuit conductors. However, if a structure's feeder/branch circuit supplies HVAC/refrigeration equipment containing a supplementary overcurrent protection device(s), this specialty may install the conductors from the supplementary overcurrent device(s) to the supplemental HVAC/refrigeration equipment if the supplementary overcurrent device and the HVAC/refrigeration equipment being supplied are located within sight of each other; or

• Panelboards, switchboards, or motor control centers external to HVAC/refrigeration system.

(v) HVAC/refrigeration **(06A):**

(A) This specialty is not limited by voltage, phase, or amperage.

(B) No unsupervised electrical trainee can install, repair, replace, or maintain any part of a HVAC/refrigeration system that contains any circuit rated over 600 volts whether the circuit is energized or deenergized.

(C) This specialty may:

• Install HVAC/refrigeration: Telecommunications, Class 2 low-voltage control circuit wiring/components in other than residential occupancies:

That have no more than three stories on/above grade; or

Regardless of the number of stories above grade if the installation:

• Does not pass between stories;

• Is made in a previously occupied and wired space; and

• Is restricted to the HVAC/refrigeration system;

• Repair, replace, and maintain HVAC/refrigeration: Telecommunications, Class 2 low-voltage control circuit wiring/components in all occupancies regardless of the number of stories on/above grade.

• Install a bonding conductor for metal gas piping to an existing accessible grounding electrode conductor or grounding electrode only when terminations can be made external to electrical panelboards, switchboards, or other distribution equipment.

(D) This specialty may not install, repair, replace, or maintain: Any electrical wiring governed under article(s) 500, 501, 502, 503, 504, 505, 510, 511, 513, 514, 515, or 516 NEC (i.e., classified locations) located outside the HVAC/refrigeration equipment.

(vi) HVAC/refrigeration - Restricted **(06B):**

(A) This specialty may not perform any electrical work where the primary electrical power connection to the HVAC/refrigeration system exceeds: 250 volts, single phase, or 120 amps.

(B) This specialty may install, repair, replace, or maintain HVAC/refrigeration: Telecommunications, Class 2 low-voltage control circuit wiring/components in other than residential occupancies that have no more than three stories on/above grade.

(C) This specialty may not install, repair, replace, or maintain:

• The allowed telecommunications/low-voltage HVAC/refrigeration wiring in a conduit/raceway system; or

• Any electrical work governed under article(s) 500, 501, 502, 503, 504, 505, 510, 511, 513, 514, 515, or 516 NEC (i.e., classified locations).

(g) **Nonresidential maintenance (07):** Limited to maintenance, repair and replacement of like-in-kind existing electrical equipment and conductors. This specialty does not include maintenance activities in residential dwellings defined in (a) of this subsection for the purposes of accumulating training experience toward qualification for the residential **(02)** specialty electrician examination.

(i) This specialty includes the installation and connections of temporary conductors and equipment for the purpose of load testing, not to exceed 600 volts.

(ii) This specialty may perform the work defined in (h), (i), (j), (k), and (l) of this subsection.

(h) **Nonresidential lighting maintenance and lighting retrofit (07A):** Limited to working within the housing of existing nonresidential luminaires for work related to repair, service, maintenance of luminaires and installation of energy efficiency lighting retrofit upgrades. This specialty includes replacement of lamps, ballasts, sockets and the installation of listed lighting retrofit reflectors and kits. All work is limited to the luminaire body, except remote located ballasts may be replaced or retrofitted with approved products. This specialty does not include installing new luminaires or branch circuits; moving or relocating existing luminaires; or altering existing branch circuits.

(i) **Residential maintenance (07B):** This specialty is limited to residential dwellings as defined in WAC 296-46B-920 (2)(a), multistory dwelling structures with no commercial facilities, and the interior of dwelling units in multistory structures with commercial facilities. This specialty may maintain, repair, or replace (like-in-kind) existing electrical utilization equipment, and all permit exempted work as defined in WAC 296-46B-901.

This specialty is limited to equipment and circuits to a maximum of 250 volts, 60 amperes, and single phase maximum.

This specialty may disconnect and reconnect low-voltage control and line voltage supply whips not over six feet in length provided there are no modifications to the characteristics of the branch circuit or whip.

For the purpose of this specialty, "electrical equipment" does not include electrical conductors, raceway or conduit systems external to the equipment or whip. This specialty cannot perform any plumbing work regulated under chapter 18.106 RCW.

(j) **Restricted nonresidential maintenance (07C):** This specialty may maintain, repair, or replace (like-in-kind) existing electrical utilization equipment, and all permit exempted work as defined in WAC 296-46B-901 except for the replacement or repair of circuit breakers.

This specialty is limited to equipment and circuits to a maximum of 277 volts and 20 amperes for lighting branch circuits only and/or maximum 250 volts and 60 amperes for other circuits.

The replacement of luminaires is limited to in-place replacement required by failure of the luminaire to operate. Luminaires installed in suspended lay-in tile ceilings may be relocated providing: The original field installed luminaire supply whip is not extended or relocated to a new supply point; or if a manufactured wiring assembly supplies luminaire power, a luminaire may be relocated no more than eight feet providing the manufactured wiring assembly circuiting is not changed.

This specialty may disconnect and reconnect low-voltage control and line voltage supply whips not over six feet in length provided there are no modifications to the characteristics of the branch circuit. For the purpose of this specialty, "electrical equipment" does not include electrical conductors, raceway or conduit systems external to the equipment or whip.

This specialty may perform the work defined in (h) and (i) of this subsection.

This specialty cannot perform any work governed under Article(s) 500, 501, 502, 503, 504, 505, 510, 511, 513, 514, 515, or 516 NEC (i.e., classified locations). This specialty cannot perform any plumbing work regulated under chapter 18.106 RCW.

(k) **Appliance repair (07D):** Servicing, maintaining, repairing, or replacing household appliances, small commercial/industrial appliances, and other small electrical utilization equipment.

(i) For the purposes of this subsection:

(A) The appliance or electrical utilization equipment must be self-contained and built to standardized sizes or types. The appliance/equipment must be connected as a single unit to a single source of electrical power limited to a maximum of 250 volts, 60 amperes, single phase.

(B) Appliances and electrical utilization equipment include, but are not limited to: Ovens, office equipment, vehicle repair equipment, commercial kitchen equipment, self-contained hot tubs and spas, grinders, and scales.

(C) Appliances and utilization equipment do not include systems and equipment such as: Alarm/energy management/similar systems, luminaires, furnaces/heaters/air conditioners/heat pumps, sewage disposal equipment, door/gate/similar equipment, or individual components installed so as to create a system (e.g., pumps, switches, controllers, etc.).

(ii) This specialty includes:

(A) The in-place like-in-kind replacement of the appliance or equipment if the same unmodified electrical circuit is used to supply the equipment being replaced. This specialty also includes the like-in-kind replacement of electrical components within the appliance or equipment;

(B) The disconnection and reconnection of low-voltage control and line voltage supply whips not over six feet in length provided there are no modifications to the characteristics of the branch circuit; and

(C) The installation of an outlet box and outlet at an existing appliance or equipment location when converting the appliance from a permanent electrical connection to a plug and cord connection. Other than the installation of the outlet box and outlet, there can be no modification to the existing branch circuit supplying the appliance or equipment.

(iii) This specialty does not include:

(A) The installation, repair, or modification of branch circuits conductors, services, feeders, panelboards, disconnect switches, or raceway/conductor systems interconnecting multiple appliances, equipment, or other electrical components.

(B) Any work governed under Article(s) 500, 501, 502, 503, 504, 505, 510, 511, 513, 514, 515, or 516 NEC (i.e., classified locations).

(C) Any plumbing work regulated under chapter 18.106 RCW.

(l) **Equipment repair (07E):** Servicing, maintaining, repairing, or replacing utilization equipment.

See RCW 19.28.095 for the equipment repair scope of work and definitions. This specialty cannot perform any plumbing work regulated under chapter 18.106 RCW.

(m) **Telecommunications (09):** Limited to the installation, maintenance, and testing of telecommunications systems, equipment, and associated hardware, pathway systems, and cable management systems.

(i) This specialty includes:

(A) Installation of open wiring systems of telecommunications cables.

(B) Surface nonmetallic raceways designated and used exclusively for telecommunications.

(C) Optical fiber innerduct raceway.

(D) Underground raceways designated and used exclusively for telecommunications and installed for additions or extensions to existing telecommunications systems not to exceed fifty feet inside the building.

(E) Incidental short sections of circular or surface metal raceway, not to exceed ten feet, for access or protection of telecommunications cabling and installation of cable trays and ladder racks in telecommunications service entrance rooms, spaces, or closets.

(F) Audio or paging systems where the amplification is integrated into the telephone system equipment.

(G) Audio or paging systems where the amplification is provided by equipment listed as an accessory to the telephone system equipment and requires the telephone system for the audio or paging system to function.

(H) Closed circuit video monitoring systems if there is no integration of line or low-voltage controls for cameras and equipment. Remote controlled cameras and equipment are considered (intrusion) security systems and must be installed by appropriately licensed electrical contractors and certified electricians.

(I) Customer satellite and conventional antenna systems receiving a telecommunications service provider's signal. All receiving equipment is on the customer side of the telecommunications network demarcation point.

(ii) This specialty does not include horizontal cabling used for fire protection signaling systems, intrusion alarms, access control systems, patient monitoring systems, energy management control systems, industrial and automation control systems, HVAC/refrigeration control systems, lighting control systems, and stand-alone amplified sound or public address systems. Telecommunications systems may interface with other building signal systems including security, alarms, and energy management at cross-connection junctions within telecommunications closets or at extended points of demarcation. Telecommunications systems do not include the installation or termination of premises line voltage service, feeder, or branch circuit conductors or equipment. Horizontal cabling for a telecommunications outlet, necessary to interface with any of these systems outside of a telecommunications closet, is the work of the telecommunications contractor.

(n) **Door, gate, and similar systems (10):** This specialty may install, service, maintain, repair, or replace door/gate/similar systems electrical operator wiring and equipment.

(i) For the purposes of this subsection, door/gate/similar systems electrical operator systems include electric gates, doors, windows, awnings, movable partitions, curtains and similar systems. These systems include, but are not limited to: Electric gate/door/similar systems operators, control push buttons, key switches, key pads, pull

cords, air and electric treadle, air and electric sensing edges, coil cords, take-up reels, clocks, photo electric cells, loop detectors, motion detectors, remote radio and receivers, antenna, timers, lock-out switches, stand-alone release device with smoke detection, strobe light, annunciator, control panels, wiring and termination of conductors.

(ii) This specialty includes:

(A) Low-voltage, NEC Class 2, door/gate/similar systems electrical operator systems where the door/gate/similar systems electrical operator system is not connected to other systems.

(B) Branch circuits originating in a listed door/gate/similar systems electric operator control panel that supplies only door/gate/similar systems system components providing: The branch circuit does not exceed 600 volts, 20 amperes and the component is within sight of the listed door/gate/similar systems electric operator control panel.

(C) Reconnection of line voltage power to a listed door/gate/similar systems electric operator control panel is permitted provided:

• There are no modifications to the characteristics of the branch circuit/feeder;

• The circuit/feeder does not exceed 600 volts, 20 amperes; and

• The conductor or conduit extending from the branch circuit/feeder disconnecting means or junction box does not exceed six feet in length.

(iii) This specialty does not include any work governed under Article(s) 500, 501, 502, 503, 504, 505, 510, 511, 513, 514, 515, or 516 NEC (i.e., classified locations). This specialty may not install, repair, or replace branch circuit (line voltage) conductors, services, feeders, panelboards, or disconnect switches supplying the door/gate/similar systems electric operator control panel.

(3) A specialty electrical contractor, other than the **(06)** limited energy specialty electrical contractor, may only perform telecommunications work within the equipment or occupancy limitations of their specialty electrical contractor's license. Any other telecommunications work requires a telecommunications contractor's license.

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-925 Electrical/telecommunications contractor's license.

General.

(1) The department will issue an electrical/telecommunications contractor's license that will expire twenty-four months following the date of issue to a person, firm, partnership, corporation or other entity that complies with requirements for such license in chapter 19.28 RCW. An electrical/telecommunications contractor's license will not be issued to or renewed for a person, firm, or partnership unless the Social Security number, date of birth, and legal address of each member(s) (see WAC 296-46B-100 definition for member), are submitted with the application. The department may issue an electrical/telecommunications contractor's license for a period greater or less than twenty-four months for the purpose of equalizing the number of electrical contractor's licenses that expire each month. The department may pro-

rate the electrical/telecommunications contractor's license fee according to the license period.

The applicant, upon application and renewal, must provide the department with the Social Security number, date of birth, and legal address of each member(s).

(2) Combination specialty contractor's license. The department may issue a combination specialty contractor's license to a firm that qualifies for more than one specialty electrical contractor's license. The assigned administrator must be certified in all specialties applicable to the combination specialty contractor's license. The license will plainly indicate the specialty licenses' codes included in the combination license. An administrator assigned to a telecommunications contractor must be certified as a telecommunications administrator. A combination license will not be issued for telecommunications **(09).**

(3) See RCW 19.28.041(7) for a contractor doing domestic pumping work as defined in RCW 18.106.010 (10)(c).

(4) The department may deny application, renewal, change of assignment of administrator/master electrician, reinstatement, or issuance of an electrical/telecommunications contractor's license if a firm, an owner, partner, member, or corporate officer owes money as a result of an outstanding final judgment(s) under chapter 19.28 RCW.

Electrical/telecommunications contractor bond, cash or securities deposit.

(5) Bond, cash, or securities deposit.

(a) The electrical/telecommunications contractor may furnish the department with a cash or security deposit to meet the bond requirements in lieu of posting a bond. A cash or security deposit assigned to the department for bond requirements will be held in place for one year after the contractor's license is expired, revoked, or the owner notifies the department in writing that the company is no longer doing business in the state of Washington as an electrical/telecommunications contractor. Upon written request, the cash or security deposit will then be released by the department providing there is no pending legal action against the contractor under chapter 19.28 RCW of which the department has been notified.

(b) See RCW 19.28.041(7) for a contractor doing domestic pumping work as defined in RCW 18.106.010 (10)(c).

Telecommunications contractor insurance.

(6) To obtain a telecommunications contractor's license, the applicant must provide the department with an original certificate of insurance naming the department of labor and industries, electrical section as the certificate holder. Insurance coverage must be no less than twenty thousand dollars for injury or damages to property, fifty thousand dollars for injury or damage including death to any one person, and one hundred thousand dollars for injury or damage including death to more than one person. The insurance will be considered a continuing obligation unless canceled by the insurance company. The insurance company must notify the department in writing ten days prior to the effective date of said cancellation or failure to renew.

(7) The telecommunications contractor may furnish the department with an assigned account to meet the insurance requirements in lieu of a certificate of insurance. An account assigned to the department for insurance requirements will be held in place for three years after the contractor's license is expired, revoked, or the owner notifies the department in writing that the company is no longer doing business in the state of Washington as a telecommunications contractor. Upon writ-

ten request, the account then will be released by the department providing there is no pending legal action against the contractor under chapter 19.28 RCW of which the department has been notified.

Electrical/telecommunications contractor exemptions.

(8) The following types of systems and circuits are considered exempt from the requirements for licensing and permitting described in chapter 19.28 RCW. The electrical failure of these systems does not inherently or functionally compromise safety to life or property.

Low-voltage thermocouple derived circuits and low-voltage circuits for:

(a) Built-in residential vacuum systems and garage doors; and

(b) Underground: Landscape sprinkler systems((~~;~~

~~(c) Underground landscape lighting; and~~

~~(d) Residential garage doors~~)), landscape lighting, and antennas for wireless animal containment fences.

For these types of systems and circuits to be considered exempt, the following conditions must be met:

((~~(e)~~)) (c) The power supplying the installation must be derived from a listed Class 2 power supply;

((~~(f)~~)) (d) The installation and termination of line voltage equipment and conductors supplying these systems is performed by appropriately licensed and certified electrical contractors and electricians;

((~~(g)~~)) (e) The conductors of these systems do not pass through fire-rated walls, fire-rated ceilings or fire-rated floors in other than residential units; and

((~~(h)~~)) (f) Conductors or luminaires are not installed in installations covered by the scope of Article 680 NEC (swimming pools, fountains, and similar installations).

(9) Firms who clean and/or replace lamps in luminaires are not included in the requirements for licensing in chapter 19.28 RCW. This exemption does not apply to electric signs as defined in the NEC.

(10) Firms who install listed plug and cord connected utilization equipment are not included in the requirements for licensing in chapter 19.28 RCW. The plug and cord must be a single listed unit consisting of a molded plug and cord and not exceeding 250 volt 60 ampere single phase. The plug and cord can be field installed per the manufacturer's instructions and the product listing requirements. The utilization equipment must be a single manufactured unit, including the plug and cord, that does not require any electrical field assembly except for the installation of the plug and cord and is allowed to be plug and cord connected by the NEC. Firms who perform field electrical servicing, maintaining, or repairing of plug and cord connected utilization equipment other than household appliances are not included in this exemption.

(11) Firms regulated by the Federal Communications Commission or the utilities and transportation commission, supplying telecommunications service to an end-user's property, are not required to be licensed as a telecommunications contractor under chapter 19.28 RCW for telecommunications installations made ahead of the telecommunications network demarcation point.

(12) Unregulated firms, supplying telecommunications service to an end-user's property, are not required to be licensed as a telecommunications contractor under chapter 19.28 RCW for telecommunications installations made ahead of the telecommunications network demarcation point.

(13) Leaseholders. For electrical installations, maintenance, or alterations to existing buildings only, any person, firm, partnership, corporation, or other entity holding a valid, signed lease from the property owner authorizing the leaseholder to perform electrical work, on the property the leaseholder occupies, will be allowed to purchase an electrical permit(s) and do electrical work on or within the property described in the lease. The lessee and/or his or her regularly employed employees must perform the electrical installation, maintenance and alteration.

The lessee who performs the electrical maintenance or installation work must be the sole occupant of the property or space. Property owners or leaseholders cannot perform electrical work on new buildings for rent, sale, or lease, without the proper electrical licensing and certification. For the purposes of this section, electrical work associated with setting a manufactured, mobile, or modular building is considered electrical work on a new building. Refer to RCW 19.28.261 for exemptions from licensing and certification.

(14) Assisting a householder. A friend, neighbor, relative, or other person (including a certified electrician) may assist a householder, at his/her residence in the performance of electrical work on the condition that the householder is present when the work is performed and the person assisting the householder does not accept money or other forms of compensation for the volunteer work. For the purposes of this subsection, a residence is a single-family residence.

(15) Volunteering to do electrical work. There are no exceptions from the electrical contractor's license or electrician certification requirements to allow persons to perform volunteer electrical work for anyone other than a householder or a nonprofit organization as allowed by RCW 19.28.091(7). For the purpose of this section, volunteer means that there is no remuneration or receiving of goods or services in return for electrical installations performed.

(16) Farms or place of business. See RCW 19.28.261 for licensing/certification exemptions allowed for the owner(s) of a farm or other place of business and for the employees of the owner.

(17) The licensing and certification requirements of chapter 19.28 RCW do not apply to persons or firms who remove electrical wiring and/or equipment for the purpose of disposal when all conductors, raceways, and equipment to be disposed of have been physically separated from the source of power by a properly certified electrician employed by a licensed electrical contractor, or person(s) meeting the exemptions listed in RCW 19.28.261. Removal of a component or only a portion of an equipment unit is considered electrical maintenance and does not qualify for this exemption.

Exemptions - Electrical utility and electrical utility's contractor.

(18) Electrical utility exemptions.

(a) Utility system exemption - RCW 19.28.010(1) and 19.28.091(1).

(i) Neither a serving electrical utility nor a contractor or subcontractor employed by the serving electrical utility is required to have an electrical contractor's license for work on the "utility system" or on service connections or on meters or other apparatus used to measure the consumption of electricity.

(ii) Exemption from inspection. The work of a serving electrical utility and its contractor(s) on the work exempted by NEC 90.2 (b)(5), 1981 edition, is not subject to inspection.

(b) Street/area lighting exemption - RCW 19.28.091 (2)(a).

(i) On:

(A) Publicly owned streets, parks, athletic/play fields, beaches, and similar areas where the public has general, clear, and unrestricted access; or

(B) Outside area lighting installed on a utility owned pole(s) that is used to support the utility's electric distribution wiring or equipment that supplies a private property owner's property, the serving electrical utility is considered to be an owner and is not required to have an electrical contractor's license or electrical permit to install or work on wiring or equipment, owned by the utility and used in the lighting of those streets/areas.

(ii) On other privately or publicly owned property (e.g., private streets, parking lots, businesses, schools, etc.), the serving utility is not required to have an electrical contractor's license or electrical permit to install or work on outside street/area lighting where the light(s) is supplied directly from the utility system and installed according to the NESC or NEC.

This work is considered to be utility type work.

An electric utility is not allowed to install or work on street/area lighting:

(A) When the area is privately or publicly owned and the public does not have general, clear, and otherwise unrestricted access such as: Industrial property, residential property, or other property where the public's access is restricted in any manner.

(B) Where the lighting is supplied from a source of power derived from a customer-owned electrical system.

(C) Where the lighting or wiring is attached to a building or other customer-owned structure.

(D) If the utility does not directly perform the installation or work, it may only contract the work to an appropriately licensed electrical contractor(s). See RCW 19.28.091(3).

(c) Customer-owned equipment exemption - RCW 19.28.091 (2)(b). A serving electrical utility is not required to have an electrical contractor's license to work on electrical equipment owned by a commercial, industrial, or public institution customer if:

(i) The utility has not solicited such work; and

(ii) Such equipment:

(A) Is located outside a building or structure; and

(B) The work performed is ahead of the secondary side of the customer's transformer(s) which supplies power at the customer's utilization voltage.

If the utility does not directly perform the installation or work, it may only contract the work to an appropriately licensed electrical contractor(s). See RCW 19.28.091(3).

This work is considered to be utility type work.

The owner will provide the electrical work permit and be responsible for requesting inspections and for ensuring the work is installed per chapter 19.28 RCW and this chapter.

Exemptions - Electrical utility telecommunications transition equipment installations, maintenance and repair.

(19) No license, inspection or other permit will be required by the department of any electric utility or, of any person, firm, partnership or corporation or other entity employed or retained by an electric utility or its contractor, because of work in connection with the installation, maintenance, or repair of telecommunications transition equipment located ahead of the utility's telecommunications network demarcation point on the outside of a building or other structure

when the work is performed by a qualified person consistent with the requirements of the National Electric Code (NEC) except as provided in (a) and (b) of this subsection:

(a) The following exceptions to the NEC will be permitted:

(i) An additional service disconnect supplying power to the transition equipment can be connected on the supply side of the main service disconnect supplying general power to the building;

(ii) Service entrance disconnects may be separated when clearly labeled;

(iii) The service disconnect used for supplying power to the transition equipment must be connected to the grounding electrode system using:

(A) #8 AWG copper or larger grounding electrode conductor if protected from physical damage; or

(B) #6 AWG copper or larger grounding electrode conductor if not protected from physical damage;

(iv) Use of equipment or materials that have been listed/field evaluated by a recognized independent testing laboratory or the department;

(v) Low-voltage circuits do not require a separate disconnecting means and may be grounded to the transition equipment grounding system;

(vi) Any other variance to the NEC must be approved by the department.

(b) A variance recommended by a joint utility standards group composed of representatives of both public and private utilities or certified by a professional engineer will be approved by the department unless the recommendation is inconsistent with meeting equivalent objectives for public safety.

(c) For the purposes of this section, a qualified worker is employed by a utility or its contractor and is familiar with the construction or operation of such lines and/or equipment that concerns his/her position and who is proficient with respect to the safety hazards connected therewith, or, one who has passed a journey status examination for the particular branch of the electrical trades with which he/she may be connected or is in a recognized training or apprenticeship course and is supervised by a journey level person.

(d) Although the utility is responsible for inspection and approval of the installation, including the selection of material and equipment, the department reserves the right to audit worker qualifications and inspect such installations semiannually for conformance with the requirements of (a), (b) and (c) of this subsection but will not collect a permit fee for such inspection or audit.

(e) If a utility fails to meet the requirements of this section, the department may require the utility to develop and submit a remedial action plan and schedule to attain compliance with this section which may be enforced by the department.

(f) This exemption will be in addition to any other exemption provided in chapter 19.28 RCW, this chapter or other applicable law.

Exemptions - Independent electrical power production equipment exemption.

(20) An independent electrical power production entity is not required to have an electrical contractor's license to work on electrical equipment used to produce or transmit electrical power if:

(a) The entity is:

(i) The owner or operator of the generating facility is regulated by the Federal Energy Regulatory Commission (FERC);

(ii) A municipal utility, or other form of governmental electric utility, or by an electrical cooperative or mutual corporation; or

(iii) The owner or operator of the generating facility is an independent electrical power producer and the facility generates electrical power only for sale to one or more:

(A) Electrical utilities regulated by FERC, municipal utility, or other form of governmental utility, or to an electric cooperative or mutual corporation; and

(B) The electrical power generated by the facility is not used for self-generation or any other on- or off-site function other than sale to one or more utilities regulated by FERC or by one or more state public utilities commissions, or to a PUD, municipal utility, or other form of governmental electric utility, or to an electric cooperative or mutual corporation.

(b) The entity must supply the chief electrical inspector a valid master business license issued by the department of licensing, state of Washington so that the entity's status as a revenue generating business can be confirmed.

(c) The entity has entered into an agreement to sell electricity to a utility or to a third party; and

(d) The electrical equipment is used to transmit electricity from the terminals of an electrical generating unit located on premises to the point of interconnection with a utility system.

(e) The electrical power production facility's generation capacity exceeds 100 KVA.

(f) Notwithstanding that a generating facility may be granted an exemption pursuant to this section, the facility will be subject to all the requirements of chapter 19.28 RCW if the facility at any time in the future ceases to comply with the requirements for exemption. All site facilities not exclusively and directly required to generate and/or distribute the electrical power generated on the site are subject to all the licensing and inspection requirements of chapter 19.28 RCW. All facility services, feeders, and circuits not exclusively and directly required to generate and/or distribute the electrical power (e.g., lights, outlets, etc.) must comply with all requirements of chapter 19.28 RCW for licensing and inspection. Facility circuits supplied to equipment required for the function of generation equipment (e.g., block heaters, power supplies, wind generator tower circuits, etc.) must comply with all requirements of chapter 19.28 RCW for licensing and inspection up to and including the equipment termination point.

(g) The generation equipment must not be mounted on or in any building or structure not required for generation of power (e.g., schools, offices, residences, apartment buildings, hospitals, etc.).

Exemptions - Telegraph and telephone utility and telegraph and telephone utility's contractor.

(21) Telegraph and telephone utility exempted equipment and installations. No person, firm, partnership, corporation, or other entity is required to have an electrical contractor's license for work on electrical equipment and installations thereof that are exempted by RCW 19.28.151. For the purposes of this exemption, "building or buildings used exclusively for that purpose" may mean any separate building or space of a building where the space is separated from the remainder of the building by a two-hour fire wall. The telecommunications or

telegraph equipment within such a space must supply telephone or telegraph service to other customer's buildings (i.e., telecommunications or telegraph equipment cannot solely supply the building containing the telephone/telegraph space).

Exemptions - Manufacturers of electrical/telecommunications products.

(22) Manufacturers of electrical/telecommunications systems products will be allowed to utilize a manufacturer's authorized factory-trained technician to perform initial calibration, testing, adjustment, modification incidental to the startup and checkout of the equipment, or replacement of components within the confines of the specific product, without permit or required licensing:

(a) Provided the product:

(i) Has not been previously energized;

(ii) Has been recalled by the Consumer Product Safety Commission;

(iii) Is within the manufacturer's written warranty period, a period not to exceed one year from date of original installation of the new product; or

(iv) The manufacturer is working under the written request and supervision of an appropriately licensed electrical contractor.

(b) Except for the replacement of individual components, as allowed above, this exemption does not include the ((~~initial~~)) on-site assembly, installation, removal, or replacement of the electrical product. Modifications to the equipment, as designated above, must not include any changes to the original intended configuration nor changes or contact with external or field-connected components or wiring.

(c) The manufacturer will be responsible for obtaining any required reapproval/recertification from the original listing or field evaluation laboratory.

(d) The manufacturer must notify the department if any modifications have been made or reapproval/recertification is required.

Premanufactured electric power generation equipment assemblies and control gear.

(23) Premanufactured electric power generation equipment assemblies and control gear.

(a) Manufacturers of premanufactured electric power generation equipment assemblies and control gear will be allowed to utilize a manufacturer's authorized factory-trained technician to perform initial calibration, testing, adjustment, modification incidental to the startup and checkout of the equipment, or replacement of components within the confines of the specific product, without permit or required licensing, provided:

(i) For transfer equipment, the product has not been previously energized or is within the manufacturer's written warranty period;

(ii) Modifications to the equipment, as designated above, must not include any changes to the original intended configuration nor changes or contact with external or field-connected components or wiring;

(iii) The manufacturer will be responsible for obtaining any required reapproval/recertification from the original listing or field evaluation laboratory; or

(iv) The manufacturer must notify the department if any modifications have been made or reapproval/recertification is required.

(b) Premanufactured electric power generation equipment assemblies are made up of reciprocating internal combustion engines and the associated control gear equipment. Control gear equipment includes control logic, metering, and annunciation for the operation and the

quality of power being generated by the reciprocating internal combustion engine and does not have the function of distribution of power.

(c) Modifications of a transfer switch must not include changes to the original intended configuration or changes or contact with externally field-connected components.

(d) For the purposes of this subsection, the following work on premanufactured electric power generation equipment assemblies is not exempt from the requirements of chapter 19.28 RCW:

(i) Installation or connection of conduit or wiring between the power generation unit, transfer switch, control gear;

(ii) Installation of the transfer switch;

(iii) Connections between the power generation unit, transfer switch, control gear, and utility's transmission or distribution systems;

(iv) Connections between the power generation unit, transfer switch, control gear, and any building or structure; or

(v) Test connections with any part of:

(A) The utility's transmission or distribution system; or

(B) The building or structure.

(24) The installation, maintenance, or repair of a medical device deemed in compliance with chapter 19.28 RCW is exempt from licensing requirements under RCW 19.28.091, certification requirements under RCW 19.28.161, and inspection and permitting requirements under RCW 19.28.101. This exemption does not include work providing electrical feeds into the power distribution unit or installation of conduits and raceways. This exemption covers only those factory engineers or third-party service companies with equivalent training who are qualified to perform such service.

(25) Coincidental electrical/plumbing work. See RCW 19.28.091(8) for the plumber exemption. For the purposes of RCW 19.28.091(8), the like-in-kind replacement includes the appliance or any component part of the appliance such as, but not limited to, the thermostat in a water heater.

(26) Nothing in this section will alter or amend any other exemptions from or requirement for licensure or inspection, chapter 19.28 RCW or this chapter.

Photovoltaic equipment.

(27) See WAC 296-46B-690 for specific exemptions related to photovoltaic installations.

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-940 Electrician/certificate of competency required.

General.

(1) The department will deny application, renewal, reinstatement, or issuance of a certificate or permit if an individual owes money as a result of an outstanding final judgment(s) under chapter 19.28 RCW.

(2) The scope of work for electricians is described in WAC 296-46B-920.

Electrician - Certificate of competency required.

(3) To work in the electrical construction trade, an individual must possess, wear, and visibly display on the front of the upper body, a current valid:

(a) Master journey level electrician certificate of competency issued by the department;

(b) Journey level electrician certificate of competency issued by the department;

(c) Master specialty electrician certificate of competency issued by the department;

(d) Specialty electrician certificate of competency issued by the department; or

(e) Electrical training certificate, learning the trade in the proper ratio, per RCW 19.28.161, under the supervision of a certified master journey level electrician, journey level electrician, master specialty electrician working in their specialty, or specialty electrician working in their specialty.

The certificate may be worn inside the outer layer of clothing when outer protective clothing (e.g., rain gear when outside in the rain, arc flash, welding gear, etc.) is required. The certificate must be worn inside the protective clothing so that when the protective clothing is removed, the certificate is visible. A cold weather jacket or similar apparel is not protective clothing.

The certificate may be worn inside the outer layer of clothing when working in an attic or crawl space or when operating equipment (e.g., drill motor, conduit threading machine, etc.) where wearing the certificate may pose an unsafe condition for the individual.

The certificate must be immediately available for examination at all times.

When working as a certified electrician, the electrician must not display a training certificate.

When supervising a trainee(s), the supervising electrician's certificate must be appropriate for the work being performed by the trainee(s). <u>For the purposes of this section, supervising a trainee is considered to be working in the electrical construction trade.</u>

Any person working as an electrician or trainee must also possess a government issued photo identification and immediately present that identification when requested by the inspector.

(4) The department issues master electrician and electrician certificates of competency in the following areas of electrical work:

(a) General journey level **(01)**;

(b) Specialties:

(i) Residential **(02)**;

(ii) Pump and irrigation **(03)**;

(iii) Domestic pump **(03A)**;

(iv) Signs **(04)**;

(v) Limited energy system **(06)**;

(vi) HVAC/refrigeration **(06A)**;

(vii) HVAC/refrigeration - Restricted **(06B)**;

(viii) Nonresidential maintenance **(07)**;

(ix) Nonresidential lighting maintenance and lighting retrofit **(07A)**;

(x) Residential maintenance **(07B)**;

(xi) Restricted nonresidential maintenance **(07C)**;

(xii) Appliance repair **(07D)**;

(xiii) Equipment repair **(07E)**; and

(xiv) Door, gate, and similar systems **(10)**.

Original certificates of competency.

(5) The department will issue an original certificate of competency to master, journey level, or specialty electricians who meet the eligibility requirements listed in:

(a) RCW 19.28.191 (1)(a) or (b) and chapter 19.28 RCW; and

(i) Submit an application for an original master electrician certificate including: Date of birth, mailing address and Social Security number; and

(ii) Pay all appropriate fees, as listed in WAC 296-46B-909;

(b) RCW 19.28.191 (1)(d) and (e);

(i) Submit an original master electrician certification examination application including: Date of birth, mailing address and Social Security number; and

(ii) Pay all appropriate fees, as listed in WAC 296-46B-909; or

(c) RCW 19.28.191 (1)(f) through (g);

(i) Submit an original electrician certification examination application including: Date of birth, mailing address and Social Security number; and

(ii) Pay all appropriate fees, as listed in WAC 296-46B-909.

(6) An individual's original electrician certificate of competency will expire on their birth date at least two years, and not more than three years, from the date of original issue.

Renewal - Master electrician, journey level, and specialty electrician certificates of competency.

(7) An individual must apply for renewal of their electrician certificate of competency on or before the expiration date of the certificate. The individual may not apply for renewal more than ninety days prior to the expiration date. Renewed certificates are valid for three years.

(8) An individual may renew their certificate of competency within ninety days after the expiration date without reexamination if the individual pays the late renewal fee listed in WAC 296-46B-909.

(9) All applications for renewal received more than ninety days after the expiration date of the certificate of competency require that the electrician pass the appropriate competency examination before being recertified.

(10) All applicants for certificate of competency renewal must:

(a) Submit a complete renewal application;

(b) Pay all appropriate fees; and

(c) Complete the continuing education requirements described in WAC 296-46B-970. Continuing education classes are only valid when all the requirements of WAC 296-46B-970 are completed.

Continuing education for pump and irrigation **(03)** and domestic pump **(03A)** electricians may be comprised of fifty percent electrical and fifty percent plumbing instruction.

(11) An individual who has not completed the required hours of continuing education can renew a certificate of competency if the individual applies for renewal before the certificate of competency expires and pays the appropriate renewal fee. However, the certificate of competency will be placed in an inactive status. The inactive certificate of competency will be returned to current status upon validation, by the department, of the required continuing education. If the certificate renewal date occurs during the inactive period, the certificate must be renewed on or before the renewal date to allow the return to current status.

(12) An individual may renew a suspended certificate of competency by submitting a complete renewal application including obtaining and submitting the continuing education required for renewal. However, the certificate will remain in a suspended status for the duration of the suspension period. Before the suspended certificate of competency can be activated, the holder must pass the appropriate electrician or master electrician competency examination in accordance with RCW 19.28.211(2).

(13) An individual may not renew a revoked certificate of competency.

Exemptions - Lineworker.

(14) When performing the work described and allowed in WAC 296-46B-925 (18)(a) or (b)(i), when employed by the serving utility or its contractor or subcontractor(s), a lineworker is exempt from the requirements of chapter 19.28 RCW.

(15) When performing the work described and allowed in WAC 296-46B-925 (18)(b)(ii) or (c), when employed by the serving utility or its licensed electrical contractor or subcontractor(s), a lineworker must meet the requirements of RCW 19.28.261 (5)(b) or be an appropriately certified electrician. See the definition of a lineworker in WAC 296-46B-100.

Exemptions - Plumbers.

(16) Coincidental electrical/plumbing work. See RCW 19.28.091(8) for the plumber exemption. For the purposes of RCW 19.28.091(8), the like-in-kind replacement includes the appliance or any component part of the appliance such as, but not limited to, the thermostat in a water heater.

Reciprocal agreements between Washington and other states.

(17) The department may negotiate reciprocal agreements with states that have equivalent requirements for certification of journey level or specialty electricians. These agreements allow electricians from those reciprocal states to become certified in the state of Washington without examination and allow Washington certified electricians to become certified in the other states without taking competency examinations. An individual may only apply for reciprocity from another state(s) one time in Washington.

(18) An individual will be issued a reciprocal electrician certificate of competency if all the following conditions are met:

(a) The department has a valid reciprocal agreement with the other state in the journey level or specialty category requested;

(b) The individual makes a complete application for a reciprocal certificate on the form provided by the department. A complete application includes:

(i) Application for reciprocal certificate of competency;

(ii) Evidence that the individual meets the eligibility requirements listed in RCW 19.28.191, by presenting a current, valid journeyperson or specialty electrician certificate or certified letter from the issuing state attesting to possession of such certificate by the applicant:

(A) Evidence from an apprenticeship training director that any journey level category applicant has successfully completed an apprenticeship program that is equivalent to an apprenticeship program approved under chapter 49.04 RCW approved by the department for the electrical construction trade in which the applicant worked in the

electrical construction trade for a minimum of eight thousand hours; or

(B) Evidence that any journey level category applicant has worked in the electrical construction trade for a minimum of sixteen thousand hours.

(iii) All appropriate fees as listed in WAC 296-46B-909.

(c) The individual obtained the reciprocal state's certificate of competency as a journey level or specialty electrician by examination and the individual held the reciprocal state's certificate for a period of at least one year.

(19) An individual is not eligible for a reciprocal electrician certificate of competency if the individual:

(a) Has failed to renew a similar Washington electrician certificate of competency as required in RCW 19.28.211; or

(b) Has a similar Washington electrician certificate of competency in suspended, revoked, or inactive status under this chapter; or

(c) Owes money as a result of an outstanding final judgment(s) to the department; or

(d) Has ever taken and failed a Washington exam for the certificate being applied for; or

(e) Was a resident of the state of Washington at the time the examination was taken in the other state.

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-942 Training certificate required.

General.

(1) To work in the electrical construction trade as an electrical trainee, an individual must possess, wear, and visibly display a current valid electrical training certificate, learning the trade in the proper ratio, per RCW 19.28.161, under the supervision of a certified master journey level electrician, journey level electrician, master specialty electrician working in their specialty, or specialty electrician working in their specialty.

The trainee must meet all the requirements of WAC 296-46B-940 related to visibly displaying a current certificate and having a valid photo identification on his/her person.

Beginning July 1, 2023, unless working in a specialty, apprentices and individuals learning the electrical construction trade must have in their possession proof of apprenticeship or journey level training program registration. They must show their apprenticeship or training program registration documents to an authorized representative of the department at the representative's request.

(2) An active training certificate is required for all individuals throughout the individual's enrollment and matriculation in an approved construction electrician training school program described in RCW 19.28.191. A training certificate is required to work in the electrical construction trade if an individual does not:

(a) Possess a current journey level certificate of competency issued by the department;

(b) Possess a current specialty electrician certificate of competency issued by the department while working in that specialty's scope of work; or

(c) Is not working in exempt status as allowed by chapter 19.28 RCW.

(3) Trainees who have had their training certificates revoked or suspended (during the duration of the revocation or suspension) will not be issued a training certificate.

Original training certificates.

(4) The department will issue an original training certificate when the trainee applicant submits a complete training certificate application including:

(a) Date of birth, mailing address, Social Security number; and

(b) All appropriate fees as listed in WAC 296-46B-909.

All applicants for an electrical training certificate must be at least sixteen years of age. The original training certificate will be valid for two years. If an individual has previously held an electrical training certificate, then that individual is not eligible for a subsequent original training certificate.

Specialty specific - Zero percent and seventy-five percent supervision modified training certificates.

(5) For specialties as allowed in Table 945-1 (i.e., specialties with seven hundred twenty minimum hours of work experience required to be eligible for examination):

(a) The department will approve the trainee to take the appropriate specialty competency examination necessary to qualify for a zero percent supervision modified training certificate. To qualify, the trainee applicant must submit a complete zero percent supervision modified training certificate application including:

(i) Date of birth, mailing address, Social Security number;

(ii) Affidavit of experience fulfilling the minimum work experience hours required to qualify for the specialty examination described in Table 945-1; and

(iii) All appropriate fees as listed in WAC 296-46B-909.

Upon successful completion of the appropriate examination, the trainee will be issued a nonrenewable zero percent supervision modified training certificate for the appropriate specialty. The zero percent supervision modified training certificate will be restricted in duration to the time allowed in Table 945-1, note 2.

(b) Prior to the expiration of the zero percent supervision modified training certificate, the individual must submit a complete application for a seventy-five percent supervision modified training certificate for the appropriate specialty including:

(i) Seventy-five percent supervision training certificate application including: Date of birth, mailing address, Social Security number; and

(ii) All appropriate fees as listed in WAC 296-46B-909.

(c) A trainee may possess multiple (i.e., in different specialties) modified supervision training certificates for specialties where reduced supervision is allowed in Table 945-1. Combination training certificates will not be issued.

Renewal of training certificates.

(6) An individual must apply for renewal of their training certificate on or before the expiration date of the certificate. The in-

dividual may not apply for renewal more than ninety days prior to the expiration date. Renewed certificates are valid for two years.

(7) An individual may renew their training certificate after the expiration date if the individual pays the late renewal fee listed in WAC 296-46B-909.

(8) All applicants for training certificate renewal must:

(a) Submit a complete renewal application;

(b) Pay all appropriate fees; and

(c) Complete the approved basic trainee classes required by WAC 296-46B-970. Basic trainee classes are only valid when all the requirements of WAC 296-46B-970 are completed.

(d) Within ((~~thirty~~)) one hundred eighty days after ((~~renewing~~)) the expiration date of an electrical training certificate, the individual, if not enrolled in a department approved apprenticeship program, must submit a completed, signed, and notarized affidavit(s) of experience for all hours of experience gained since the individual's last training certificate was effective.

Employers are required to provide the necessary documentation and signed affidavit of experience to the trainee within twenty days after the trainee requests the affidavit. See WAC 296-46B-942(12). See WAC 296-46B-985(4) for the penalty for providing a false or inaccurate affidavit of experience. If the individual is enrolled in a department approved apprenticeship program, the program may submit the required affidavit(s) of experience upon the individual's completion of the required experience hours without cost to the individual. The affidavit of experience must accurately attest to:

(i) The electrical installation work performed for each employer the individual worked for in the electrical trade during the previous period;

(ii) The correct electrical category the individual worked in; and

(iii) The actual number of hours worked in each category under the proper supervision of a Washington certified, master journey level electrician, journey level electrician or appropriate master specialty electrician or specialty electrician under that specific training certificate. If a trainee possesses multiple training certificates, an affidavit must be submitted for each training certificate for the hours worked under that specific training certificate.

If the individual is enrolled in a department approved apprenticeship program, the program may submit the required affidavit(s) of experience upon the individual's completion of the required experience hours without cost to the individual.

(9) Until July 1, 2020, an individual who has not completed the required hours of basic trainee class education can renew a training certificate if the individual applies for renewal before the training certificate expires and pays the appropriate renewal fee. However, the training certificate will be placed in an inactive status. The inactive training certificate will be returned to current status upon validation, by the department, of the required basic trainee class education. Effective July 1, 2020, an individual may not renew a training certificate until the required hours of basic classroom education have been completed.

(10) An individual may renew a suspended training certificate by submitting a complete renewal application including obtaining and submitting the basic trainee class education required for renewal. However, the certificate will remain in a suspended status for the duration of the suspension period.

(11) An individual will not be issued a renewed or reinstated training certificate if the individual owes the department money as a result of an outstanding final judgment under chapter 19.28 RCW.

(12) The individual should ask each employer and/or apprenticeship training director for an accurately completed, signed, and notarized affidavit of experience for the previous certification period. The employer(s) or apprenticeship training director(s) must provide the previous period's affidavit of experience to the individual within twenty days of the request. If an individual is enrolled in an approved electrical construction trade apprenticeship program under chapter 49.04 RCW when the individual renews an electrical training certificate, the individual and their apprenticeship training director and/or each employer must give the department an accurately completed, signed, and notarized affidavit of experience accurately attesting to:

(a) The electrical installation work the individual performed in the electrical trade during the previous certification period;

(b) The correct electrical category the individual worked in; and

(c) The actual number of hours worked in each category under the proper supervision of a Washington certified master journey level electrician, journey level electrician or appropriate master specialty or specialty electrician for each employer. For apprentices enrolled in a registered apprenticeship program, the applicant and the training director are the only authorized signatures the department will accept on affidavits of experience.

(13) The individual and their employer(s) and/or apprenticeship training director(s) must sign and have notarized the affidavit of experience attesting to the accuracy of all information contained in the affidavit.

(14) The trainee, supervising electrician, contractor, and assigned administrator or master electrician are responsible for ensuring compliance with subsection (13) of this section. See WAC 296-46B-985 and 296-46B-990 (3)(c) and (f) for information about failing to submit or submitting false/fraudulent documents. Falsifying documents may be considered perjury and might result in criminal prosecution, civil penalty, or certificate revocation or suspension.

Trainees without supervision present on the job site.

(15) When the supervising electrician is found to not be present on the job site, the trainee may be given a form by the inspector that must be fully completed and returned or postmarked within twenty-four hours to the inspector. The supervising electrician must sign the statement for the trainee if appropriate supervision was provided. If the supervising electrician fails or refuses to assist the trainee in completing the form, the trainee must return the form with a signed and dated statement stating the supervising electrician's name and saying that the supervising electrician refused to assist.

Trainees seeking a journey level electrician certificate - Working with no supervision.

(16) Trainee seeking a general **(01)** journey level electrician certificate of competency. After review by the department, a trainee may be issued a six-month, nonrenewable unsupervised electrical training certificate that will allow the individual to work without supervision if the trainee:

(a) Has submitted a complete application for an unsupervised electrical training certificate;

(b) Has worked over seven thousand hours properly supervised not to include more than four thousand of specialty experience;

(c) Has successfully completed or is currently enrolled in an approved apprenticeship program or an electrical construction trade program in a school approved by the board of community and technical colleges;

(d) Has paid all appropriate training certificate fees listed in WAC 296-46B-909;

(e) Is currently working for and continues to work for a licensed electrical contractor that employs at least one certified journey level or specialty electrician in the appropriate specialty; and

(f) Has not previously failed a journey level electrician certificate of competency examination (see WAC 296-46B-960(11)).

Trainees seeking certain specialty electrician certificates - Working with reduced or no supervision.

(17) After review by the department, a trainee may be issued a nonrenewable zero percent supervision training certificate that will allow the individual to work without supervision if the trainee meets the requirements in subsection ((~~(4)~~)) (5) of this section.

(18) Electrical trainees may work unsupervised when installing HVAC/R thermostat cable when the HVAC/R system consists of a single thermostat in one- and two-family dwelling units where line voltage power has not been connected to the dwelling's electrical system.

AMENDATORY SECTION (Amending WSR 14-11-075, filed 5/20/14, effective 7/1/14)

WAC 296-46B-945 Qualifying for master, journey level, specialty electrician examinations. (1) General.

(a) All applicants must be at least sixteen years of age.

(b) All applicants, from in or out of state, must demonstrate the completion of basic trainee classes described in WAC 296-46B-970 (4)(c)(ii)(D).

(i) Twenty-four hours where two thousand or more; but less than four thousand hours of work experience is required.

(ii) Forty-eight hours where four thousand or more; but less than six thousand hours of work experience is required.

(iii) Seventy-two hours where six thousand or more; but less than eight thousand hours of work experience is required.

(iv) Ninety-six hours where eight thousand or more of work experience is required.

Qualifying for the master electrician examination.

(2) An individual may take the master electrician's certificate of competency examination if the individual meets the requirements described in RCW 19.28.191 (1)(d) or (e).

Qualifying for the master electrician examination from out-of-state.

(3) No credit may be applied from out-of-state toward qualifying for a master electrician certificate of competency examination.

Qualifying for the journey level electrician competency examination.

(4) Until July 1, 2023, an individual may take the journey level electrician's certificate of competency examination if the individual held a current electrical training certificate and has worked for an employer who employs at least one certified master electrician, journey level, or specialty electrician on staff and the individual:

(a) Has been employed, in the electrical construction trade, under the direct supervision of a master electrician, journey level electrician or specialty electrician working in the appropriate specialty in the proper ratio, per RCW 19.28.161, for four years (eight thousand hours). Of the eight thousand hours:

(i) At least two years (four thousand hours) must be in new industrial and/or new commercial electrical installation (excluding all work described for specialty electricians or technicians) under the direct supervision of a master journey level electrician or journey level electrician while working for a general electrical contractor; and

(ii) Not more than a total of two years (four thousand hours) may be for work described as an electrical specialty in WAC 296-46B-920(2).

(b) Has completed a four-year apprenticeship program in the electrical construction trade that is registered with the state apprenticeship council while working under the direct supervision of a master journey level or journey level electrician in the proper ratio, per RCW 19.28.161; or

(c) Has completed a two-year electrical construction training program as described in RCW 19.28.191 for journey level electricians, and two years (four thousand hours) of work experience in new industrial and/or new commercial electrical installations (excluding work described for specialty electricians or electrical technicians) under the direct supervision of a journey level electrician while working for a general electrical contractor in the proper ratio, per RCW 19.28.161. See WAC 296-46B-971 for additional training school information.

Beginning July 1, 2023, to qualify to take the journey level electrician's certificate of competency examination, an individual must have successfully completed an apprenticeship program approved under chapter 49.04 RCW or equivalent apprenticeship program approved by the department for the electrical construction trade in which the applicant worked in the electrical construction trade for a minimum of eight thousand hours. Four thousand of the hours must be in industrial or commercial electrical installation under the supervision of a master journey level electrician or journey level electrician and not more than a total of four thousand hours in all specialties under the supervision of a master journey level electrician, journey level electrician, master specialty electrician working in that electrician's specialty, or specialty electrician working in that electrician's specialty.

Electrical construction training hours gained in specialties requiring less than two years (i.e., four thousand hours) will not be credited towards qualification for journey level electrician.

The trainee and their employer and/or apprenticeship training director must attest to the accuracy of all information contained on affidavits of experience and apprenticeship graduation certificates used to verify eligibility for the examination.

Qualifying for a specialty electrician certificate of competency or examination.

(5) After review and approval by the department, an individual may qualify for a specialty electrician's examination and certificate of competency if the individual held a current electrical training certificate, and has worked for an employer who employs at least one certified master journey level electrician, journey level electrician,

appropriate master specialty electrician, or appropriate specialty electrician on staff and the individual:

(a) Has been employed, in the electrical construction trade, under the direct supervision of an appropriate electrician in the appropriate specialty as follows:

Table 945-1 Experience Hours

Specialty	Minimum Hours of Work Experience Required to be Eligible for Examination[4][5]	Minimum Hours of Work Experience Required for Certification
Residential certificate **(02)**	4,000[3]	4,000
Pump and irrigation certificate **(03)**	4,000[3]	4,000
Domestic pump certificate **(03A)**	720[1][2]	2,000[6]
Signs certificate **(04)**	4,000[3]	4,000
Limited energy system certificate **(06)**	4,000[3]	4,000
HVAC/refrigeration system certificate **(06A)**	4,000[3]	4,000[7]
HVAC/refrigeration – Restricted **(06B)**	1,000[1][2]	2,000[6]
Nonresidential maintenance certificate **(07)**	4,000[3]	4,000
Nonresidential lighting maintenance and lighting retrofit certificate **(07A)**	720[1][2]	2,000[6]
Residential maintenance certificate **(07B)**	720[1][2]	2,000[6]
Restricted nonresidential maintenance certificate **(07C)**	1,000[1][2]	2,000[6]
Appliance repair certificate **(07D)**	720[1][2]	2,000[6]
Equipment repair certificate **(07E)**	1,000[1][2]	2,000[6]
Door, gate, and similar systems certificate **(10)**	720[1][2]	2,000[6]

Notes:

[1] Until the examination is successfully completed, the trainee must work under one hundred percent supervision. Once the appropriate examination is successfully completed, the modified supervision trainee may work under zero percent supervision.

[2] The trainee may have only one zero percent supervision certificate in a specialty (valid for no more than two years). If the trainee has not gained the required work experience by the time the zero percent supervision certificate has expired, the trainee must get a seventy-five percent supervision certificate and work under supervision until all required work experience hours are gained and credited towards the minimum work experience requirement.

[3] This specialty is not eligible for unsupervised trainee status as allowed in chapter 19.28 RCW.

[4] The trainee and their employer and/or apprenticeship training director must attest to the accuracy of all information contained on affidavits of experience used to verify eligibility for the examination.

[5] Neither previous work experience credit nor training school credit is allowed as a substitute for the initial hours of minimum work experience required to be eligible for examination unless the trainee's work experience hours under direct supervision are provided as required in RCW 19.28.191 (1)(g)(ii).

[6] Electrical construction training hours gained in specialties requiring two thousand hours or less for certification will not be credited towards qualification for journey level electrician or any of the four thousand hour specialties, except as allowed by [7], below.

[7] The two thousand minimum hours of work experience required for certification as an HVAC/refrigeration-restricted **(06B)** specialty electrician may be credited as two thousand hours towards the four thousand minimum hours of work experience required for certification as an HVAC/refrigeration **(06A)** specialty electrician. Hours of work experience credited from the HVAC/refrigeration-restricted **(06B)** specialty cannot be credited towards qualification for taking the general electrician **(01)** examination or minimum work experience requirements.

[8] Experience hours may be coincidentally credited towards qualifying for electrician and plumber certifications. See RCW 19.28.191 (1)(g)(iv).

(b) Or has completed an appropriate two-year apprenticeship program in the electrical construction trade that is registered with the state apprenticeship council while working under the direct supervision of an electrician in the appropriate specialty in the proper ratio, per RCW 19.28.161.

Qualifying for a certificate of competency when the Washington electrical work experience is exempt from certification requirements in RCW 19.28.261.

(6) After review and approval by the department, an individual may be granted work experience credit to take the journey level/specialty electrician's competency examination when an original nota-

rized letter of work experience accompanied by verifiable documentation is provided. - See subsection (7) of this section.

For the purposes of this section, exempt work does not include work performed on property owned, in whole or part, by the individual seeking credit.

All exempt individuals must have a valid electrical training certificate when working to gain electrical work experience.

Work experience requested by an individual for telecommunications work must be gained while working for **(01)** general electrical, **(02)** residential, or **(06)** limited energy system electrical contractors as allowed by those scopes of work. When the work was performed, the individual must have a valid training certificate, be under the supervision of an appropriately certified journey level, residential or limited energy electrician, and be in compliance with RCW 19.28.191.

General - Qualifying hours gained by applicants seeking work experience credit without a Washington electrician training certificate.

(7) The type of on-the-job work experience must be similar to the credit being applied for and lawfully gained in the state or other entity where the work was performed. The individual must submit verifiable documentation (e.g., payroll, time sheets, permits, supervision, etc.) that the department may use to ascertain the type of work performed and the number of hours worked for each type (i.e., specialty) of work.

Training hours credited for specialties requiring less than two years (i.e., four thousand hours) may not be credited towards qualification for general journey level electrician.

The documentation must include a complete description of the individual's usual duties with percentages attributed to each type (e.g., wiring, material handling, shop, low voltage, etc.)

The department may reduce the number of hours allowed if the:

(a) Individual did not have supervision during the training period;

(b) Training hours are not related to electrical construction;

(c) Training hours are not related to the specialty being applied for;

(d) Documentation submitted by the individual does not fully verify the requested work experience; or

(e) Work credit was not lawfully gained.

Training school credit.

(8) No more than fifty percent of the minimum work experience needed to qualify for specialty electrician certification is allowed for any training school program (e.g., a specialty requiring two thousand hours of minimum required work experience may receive no more than one thousand hours credit from an electrical construction training program).

See RCW 19.28.191 (1)(h) for training school credit allowed for journey level applicants.

See WAC 296-46B-971 for additional information on training schools.

Qualifying for the journey level/specialty electrician competency examination when work was performed in a state requiring electrician certification <u>for the work performed</u>.

(9) After review and approval by the department, an individual may be granted on-the-job work experience towards qualifying to take the journey level/specialty electrician's competency examination for

hours worked in the other state when the state certifies to the department:

(a) The type and number of hours of work performed within the state. Credit will not be allowed for work not done within the certifying state.

(b) That the work was legally performed under the other state's licensing and certification requirements; and

(c) The other state's certificate of competency was obtained by examination.

If the experience is for other than a new commercial or industrial installation, the individual must identify the specialty credit desired and provide verifiable documentation identifying the other state's allowed scope of work for the specialty, see subsection (7) of this section.

Qualifying for the journey level/specialty electrician competency examination when work was performed in a state that does not require electrician certification <u>for the work performed</u>.

(10) After review and approval by the department, an individual may be granted work experience credit to take the journey level/specialty electrician's competency examination when an original notarized letter of work experience accompanied by documentation, see subsection (7) of this section, that can be used to verify the individual has worked the hours being requested is provided by:

(a) An appropriately state licensed electrical contractor;

(b) Registered apprenticeship training director;

(c) Nationally recognized contractor/labor organization; or

(d) The individual's lawful employer.

((~~Military/shipyard~~)) <u>Military</u> experience.

(11) After review and approval by the department, an individual who has worked in the electrical construction trade performing work described in WAC 296-46B-920 while serving in the armed forces of the United States may be eligible to take the examination for the certificate of competency as a journey level or specialty electrician. Credit may be allowed for hours worked or training received.

If an individual has military experience in a specialized electrical field (e.g., rating) that is similar to a specialty electrician category listed in WAC 296-46B-920, credit may be allowed toward the appropriate specialty certificate. Nuclear, marine, shipyard, shipboard, radar, weapons, aeronautical experience, or similar experience may be acceptable for no more than fifty percent of the minimum required work experience for qualifying for electrician examination.

The department will evaluate and determine whether the submitted experience is related specifically to the electrical construction/maintenance trade regulated by chapter 19.28 RCW.

Experience in another country.

(12) After review and approval by the department, and if an individual has a journey level electrician certificate from a country outside the United States that requires that at least four years of electrical construction training and certification is obtained by examination, the individual may be eligible for four thousand hours of the specialty credit allowed towards the qualification to take the Washington journey level electrician examination.

No more than two years of the required training to become a Washington journey level electrician may be for work described for specialty electricians or technicians in WAC 296-46B-920. In addition to

the maximum of four thousand hours credit that may be allowed by this subsection, an additional four thousand hours of new commercial/industrial experience must be obtained using a training certificate in the state while under the supervision of a master journey level electrician or journey level electrician.

Documentation substantiating the individual's out of country experience must be submitted in English.

(13) Out of country experience credit is not allowed toward a specialty electrician certificate.

(14) Canadian journeyperson construction electricians with at least four years of electrical construction training who have obtained a construction electrician Red Seal endorsement by successfully completing a Red Seal examination are eligible to take the examination for the journey level electrician certificate of competency if they have possessed a Red Seal endorsement for one year.

AMENDATORY SECTION (Amending WSR 14-11-075, filed 5/20/14, effective 7/1/14)

WAC 296-46B-960 Administrator and electrician certificate of competency examinations.

General.

(1) The minimum passing score on any examination or examination section is seventy percent. If examination is requested to be administered by the department, an application is required and the examination must be successfully completed within one year of application or the individual must submit a new application for exam including all appropriate fees.

(2) All examinations are open book.

(a) Candidates may use:

(i) Any original copyrighted material;

(ii) A silent, nonprinting, nonprogrammable calculator that is not designed for preprogrammed electrical calculations;

(iii) Copies of chapter 19.28 RCW and this chapter; or

(iv) A foreign language dictionary that does not contain definitions.

(b) Candidates may not use:

(i) Copies of copyrighted material;

(ii) Copies of internet publications, except for RCWs or WACs;

(iii) Personal notes; or

(iv) A personal computing device of any type other than the calculator in (a)(ii) of this subsection.

(3) Administrator, master electrician, and electrician examinations may consist of multiple sections. For all administrator examinations, all sections must be successfully completed within a one-year examination period after beginning the examination. For all master electrician and electrician examinations, all sections must be successfully completed within a one-year examination period beginning with the date of the examination approval. Within the one-year examination period, the candidate does not have to retake any sections successfully completed within the examination period. If all sections are not successfully completed within the one-year period, the candidate must begin a new examination period and retake all sections.

Special accommodations for examination.

(4) An applicant for an examination who, due to a specific physical, mental, or sensory impairment, requires special accommodation in examination procedures, may submit a written request to the chief electrical inspector for the specific accommodation needed.

(a) The applicant must also submit to the department a signed and notarized release, authorizing the specifically identified physician or other specialist to discuss the matter with the department representative. The applicant must also submit an individualized written opinion from a physician or other appropriate specialist:

(i) Verifying the existence of a specific physical, mental, or sensory impairment;

(ii) Stating whether special accommodation is needed for a specific examination;

(iii) Stating what special accommodation is necessary; and

(iv) Stating if extra time for an examination is necessary and if so, how much time is required. The maximum allowance for extra time is double the normal time allowed.

(b) The written request for special accommodation and individualized written opinion must be submitted to the department at least six weeks in advance of the examination date and must be accompanied by a completed application and fees as described in WAC 296-46B-909.

(c) Only readers and interpreters provided from the administrative office of the courts and/or approved by the department may be used for reading or interpreting the examination. The applicant will be required to bear all costs associated with providing any reading or interpretive services used for an examination.

(d) Applicants who pass the examination with the assistance of a reader or interpreter will be issued a certificate with the following printed restriction: "Requires reading supervision for product usage." A competent reader or interpreter must be present on any job site where a person with this restriction is performing electrical work as described in chapter 19.28 RCW.

Applicants who pass the examination with the assistance of a mechanical device (e.g., magnifier, etc.) will be issued a certificate with the following printed restriction: "Requires mechanical reading assistance for product usage." Appropriate mechanical reading assistance must be present on any job site where a person with this restriction is performing electrical work as described in chapter 19.28 RCW.

If a candidate successfully retakes the examination without the assistance of a reader or translator, a new certificate will be issued without the restriction.

(5) Applicants who wish to use a foreign language dictionary during an examination must obtain approval at the examination site prior to the examination. Only dictionaries without definitions will be approved for use.

Failed examination appeal procedures.

(6) Any candidate who takes an examination and does not pass the examination may request a review of the examination.

(a) The department will not modify examination results unless the candidate presents clear and convincing evidence of error in the grading of the examination.

(b) The department will not consider any challenge to examination grading unless the total of the potentially revised score would result in a passing score.

(7) The procedure for requesting an informal review of examination results is as follows:

(a) The request must be made in writing to the chief electrical inspector and must be received within twenty days of the date of the examination and must request a rescore of the examination. The written request must include the appropriate fees for examination review described in WAC 296-46B-909.

(b) The following procedures apply to a review of the results of the examination:

(i) The candidate will be allowed one hour to review their examination.

(ii) The candidate must identify the challenged questions of the examination and must state the specific reason(s) why the results should be modified with multiple published reference material supporting the candidate's position.

(iii) Within fifteen days of the candidate's review, the department will review the examination and candidate's justification and notify the candidate in writing of the department's decision.

Failing an administrator certificate exam or electrician certificate of competency examination.

(8) Anyone failing an administrator or electrician competency examination may retake the examination by making arrangements with the testing agency and paying the retesting fee.

(9) If the individual makes a failing score, the individual must wait two weeks before being eligible to retest.

(10) If the individual fails a part of an electrician ((~~examination or a part of an~~)), administrator, or master electrician examination three times within a one-year period, the individual must wait three months to retake the failed portion of the examination.

(11) Anyone failing an electrician competency examination may continue to work in the electrical trade if they have a valid electrical training certificate and work under the direct supervision of a certified journey level or specialty electrician in the proper ratio, per RCW 19.28.161.

Cheating on an examination.

(12) Anyone found cheating on an examination, attempting to bribe a proctor or other agent involved in administering an examination, or using inappropriate materials/equipment during an examination will be required to wait at least eleven months before being allowed to reexamine. All such reexaminations will be administered by the department in Tumwater, Washington and the candidate will be required to apply and schedule for the examination with the chief electrical inspector. The department may also file a civil penalty action under chapter 19.28 RCW.

Examination confidentiality.

(13) All examination questions are confidential. Examination candidates and persons who have taken an examination are not allowed to copy or otherwise make note of or share examination content, in any manner, outside the individual's examination environment. Examination candidates must agree, prior to beginning an examination, to keep all examination content confidential. The department may also file a civil penalty action under chapter 19.28 RCW.

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-990 Failure to comply with the electrical contractor licensing, administrator certification, or electrician certification laws.

General.

(1) If the compliance officer or electrical inspector/auditor determines that an individual, employer, or employee has violated chapter 19.28 RCW or this chapter, the department will issue a citation that describes the violation.

Suspension or revocation - Of an electrical contractor's license, administrator's certificate, master electrician's certificate of competency, electrician's certificate of competency, or training certificate.

(2) The department may revoke or suspend, for such time as it determines appropriate, an electrical contractor's license, administrator's certificate, master electrician's certificate of competency, electrician's certificate of competency, or training certificate if:

(a) The license, certificate, or permit was obtained through error or fraud;

(b) The license, certificate, or permit holder is judged to be incompetent to work in the electrical construction trade as ((~~a~~)) an electrical contractor, administrator, master electrician, journey level electrician, specialty electrician, electrical technician, or electrical trainee;

(c) For serious noncompliance as described below. See RCW 19.28.241 and 19.28.341 for other grounds and procedures.

(d) The license or certificate holder incompletely or inaccurately reported continuing or basic trainee class education units on an application for renewal; or

(e) The certificate holder falsely, incompletely, or inaccurately reported previous work experience.

The department will deny an application for any license/certificate during the period of revocation or suspension of the same or another license/certificate under chapter 19.28 RCW.

(3) For the purposes of this section, serious noncompliance includes, but is not limited to, any of the following:

(a) Causing or failing to correct a serious violation. A serious violation is a violation of chapter 19.28 RCW or chapter 296-46B WAC that creates a hazard of fire or a danger to life safety. A serious violation is also a violation that presents imminent danger to the public. Imminent danger to the public is present when installations of wire and equipment that convey or utilize electric current have been installed in such a condition that a fire-hazard or a life-safety hazard is present. Imminent danger to the public is also present when unqualified, uncertified, or fraudulently certified electricians or administrators; or unlicensed or fraudulently licensed contractors are continuously or repeatedly performing or supervising the performance of electrical work covered under chapter 19.28 RCW. For the purposes of this section, a certified electrician is considered qualified, provided the electrician is working within his or her certification;

(b) The license or certificate was obtained, used, or allowed to be used through error or fraud;

(c) Submitting a fraudulent document to the department;

(d) Continuous noncompliance with the provisions of chapter 19.28 RCW or this chapter. For the purposes of this section, continuous noncompliance will be defined as three or more citations demonstrating a disregard of the electrical law, rules, or regulations within a period of three years, or where it can be otherwise demonstrated that the contractor, master electrician, electrician, or administrator has continuously failed to comply with the applicable electrical standards;

(e) Failure to make any books or records, or certified copies thereof, available to the department for an audit to verify the hours of experience submitted by an electrical trainee;

(f) Making a false statement or material misrepresentation on an application, statement of hours, or signed statement required by the department;

(g) The certificate holder falsely or inaccurately reported continuing or basic trainee class education units on an application for renewal;

(h) Installing a shortened rod/pipe grounding electrode, improper splicing of conductors in conduits/raceways or concealed within walls, or installing a fake equipment grounding conductor;

(i) Refusing to present a government issued photo identification when requested by an electrical inspector while working as an electrician or trainee as required by WAC 296-46B-940(3);

(j) Cheating on an electrical certification examination.

For any act of serious noncompliance, the person, firm, partnership, corporation, or other entity may be referred to the county prosecutor for criminal prosecution under chapter 9A.72 RCW. The department may also file a civil action under chapter 19.28 RCW.

(4) Before a license or certificate is revoked or suspended, the certificate holder will be given written notice of the department's intention to suspend or revoke. Notification will be sent by registered mail to the certificate holder's last known address. The notification will list the allegations against the certificate holder, and provide the certificate holder with the procedures necessary to request a hearing before the electrical board as described in WAC 296-46B-995.

Confiscation - Of an electrical contractor's license, administrator certificate, electrician certificate of competency, or training certificate.

(5) The department may confiscate a license or certificate that is counterfeit, revoked, expired, suspended, or altered. The individual may be referred to the county prosecutor for criminal prosecution under chapter 9A.72 RCW. The department may also file a civil action under chapter 19.28 RCW.

AMENDATORY SECTION (Amending WSR 17-12-021, filed 5/30/17, effective 7/1/17)

WAC 296-46B-995 Electrical board—Appeal rights and hearings.

General.

(1) Chapter 19.28 RCW provides the authority for the duties and responsibilities of the electrical board. Except as provided in chapter 19.28 RCW and this chapter, all proceedings will be conducted ac-

cording to chapter 34.05 RCW, Administrative Procedure Act and chapter 10-08 WAC, Model rules of procedure. See chapter 34.05 RCW, Administrative Procedure Act for specific definitions not described in this chapter.

(2) See RCW 19.28.311 for the composition of the electrical board.

(3) The board adopts the current edition of the "*Roberts' Rules of Order, Newly Revised.*"

(4) The board will hold regular meetings on the last Thursday of January, April, July, and October of each year per RCW 19.28.311.

(5) The director or the chairperson of the board may call a special meeting at any time.

(6) Each board member must be notified in writing of the agenda, date, time, and place of each regular and special meeting. "Writing" includes by electronic mail, also known as "email," if the member has provided an email address for such notice.

(7) The board or department may elect to have an appeal heard by the office of administrative hearings either tape recorded or transcribed by a court reporter; and the board may so elect regarding hearings or board reviews heard by the board as a whole.

(8) A majority of the board constitutes a quorum for purposes of rendering any decision.

(a) If a majority does not attend a hearing or board review on an appeal, the board may either continue the hearing or board review to a date certain or may hear the testimony and arguments.

(b) If the board hears the testimony and arguments, the members of the board who are absent may make their decisions after hearing the tape recording or reading the transcript, of the hearing or board review.

(c) If the board selects the method in ((~~subsection (8)~~))(b) of this ((~~section~~)) subsection, at the time of the hearing, the board will set a date certain for the absent members to complete review of the record and for the board as a whole to vote on the decision. The vote in ((~~subsection (8)~~))(b) and (c) of this ((~~section~~)) subsection may occur by U.S. mail, facsimile or by electronic mail and will be determined by the board at the hearing; the members' votes will be public record.

(9) All filings and documents for any matter before the board must be submitted to the chief electrical inspector, as secretary to the board, 7273 Linderson Way, P.O. Box 44460, Olympia, WA 98504-4460. Twenty copies of filings and documents must be submitted by ordinary mail, certified or registered mail, or by personal delivery. Filings and documents must be received no later than forty-five days prior to the scheduled meeting. When filings or documents are received after the deadlines, the filings and documents will be presented to the board at the second regularly scheduled board meeting.

(10) All hearings before the board as a whole will be held on regularly scheduled meeting dates, as listed in subsection (4) of this section, unless the board determines that an alternate date is necessary.

(11) All notices of appeal, with a certified check payable to the department in the amount specified in subsection (12), ((~~(14),~~)) (15), (16), or ((~~(17)~~)) (18) of this section if required, must be received in the office of the chief electrical inspector, as secretary to the board, at least forty-five days before the regularly scheduled board meeting at which the hearing would occur. A separate appeal fee is required for each entity's appeal of a specific violation type (e.g.,

for a single entity, the designated administrator, multiple alleged violations of RCW 19.28.061 (5)(a) - Designated administrator not available, RCW 19.28.061 (5)(d) - Designated administrator fails to ensure proper permit is purchased, and RCW 19.28.061 (5)(e) - Designated administrator fails to ensure corrections are made would require three of the applicable appeal amounts; one for each specific violation type). The total appeal fee for each entity seeking an appeal hearing is one thousand dollars maximum for all violation types. For original appeals to the board, the appellant must submit twenty copies of any written argument, briefs, testimony, or documents for the board's consideration at least forty-five days prior to the scheduled hearing. When appeals, written argument, briefs, testimony, or documents are received after the deadlines, the appeals, written argument, briefs, testimony, or documents will be presented to the board at the second regularly scheduled board meeting.

Appeals

(12) Appeals of penalties issued by the department.

(a) A party may appeal a penalty issued by the department, pursuant to chapter 19.28 RCW and this chapter, to the board. The appeal will be assigned to the office of administrative hearings.

(b) The appeal must be filed within twenty days after the notice of the decision or penalty is given to the assessed party either by personal service or using a method by which the mailing can be tracked or the delivery can be confirmed, sent to the last known address of the assessed party and must be made by filing a written notice of appeal with the chief electrical inspector, as secretary to the board. The request for an appeal must be accompanied with a certified check payable to the department in the sum of two hundred dollars or ten percent of the penalty amount, whichever is less, but in no event less than one hundred dollars.

(13) Appeals of proposed decisions issued by the office of administrative hearings.

(a) A party may appeal a proposed decision issued by the office of administrative hearings pursuant to chapter 19.28 RCW to the board. The appeal must be filed within twenty days after service of the decision and must be made by filing a written notice of appeal with the chief electrical inspector, as secretary to the board.

(b) The notice of appeal of a proposed decision must be received in the office of the chief electrical inspector, as secretary to the board, at least forty-five days before a regularly scheduled board meeting. If you want the board to consider written argument, briefs, testimony, or other documents, it must be submitted at least forty-five days prior to the scheduled hearing.

(14) Appeals of penalty decisions issued through an appellant process of a city or town.

(a) A party may appeal a decision pursuant to RCW 19.28.010(4) to the board. The appeal must be filed within twenty days after service of the decision and must be made by filing a written notice of appeal with the chief electrical inspector, as secretary to the board.

(b) The notice of appeal must be received in the office of the chief electrical inspector, as secretary to the board, at least forty-five days before a regularly scheduled board meeting. If you want the board to consider written argument, briefs, testimony, or other documents, it must be submitted at least forty-five days prior to the scheduled hearing.

(15) Appeals of suspension, revocation, or nonrenewal.

(a) An appeal of the suspension or revocation of a license or certificate of competency under RCW 19.28.241 and 19.28.341 or of nonrenewal of a license or certificate of competency under this chapter will be heard by the board in accordance with chapter 34.05 RCW and not assigned to the office of administrative hearings. The board will conduct the hearing and may elect to have the assistance of an administrative law judge in the proceeding.

(b) The appeal must be filed within twenty days after the notice of suspension or revocation is served on the subject of said action, either by personal service or using a method by which the mailing can be tracked or the delivery can be confirmed, sent to the last known address of the subject and must be filed by written notice of appeal with the chief electrical inspector, as secretary to the board. The request for an appeal must be accompanied with a certified check payable to the department in the sum of two hundred dollars or, for appeals of nonrenewal due to outstanding final judgments owed to the department, the amount shall be two hundred dollars or ten percent of the outstanding penalty amount, whichever is less, but in no event less than one hundred dollars.

((~~(15)~~)) (16) Appeals of decisions on installation.

(a) A party may seek board review for disputes relating to the interpretation and application of electrical/telecommunications installation or maintenance standards under RCW 19.28.111, 19.28.480, and 19.28.531. The board will conduct the hearing and may elect to have the assistance of an administrative law judge in the proceeding.

(b) The notice of appeal, with the certified check payable to the department in the sum of two hundred dollars, must be received in the office of the chief electrical inspector, as secretary to the board, at least thirty days before a regularly scheduled board meeting. All parties must submit any written argument, briefs, testimony, or documents for the board's consideration at least twenty days prior to the scheduled hearing.

((~~(16)~~)) (17) Appeals of a continuing or basic trainee class or instructor for denials or revocations.

A party may appeal a decision issued by the department, pursuant to WAC 296-46B-970 (3)(e)(iv) to the superior court per RCW 34.05.542(3).

((~~(17)~~)) (18) Appeals pertaining to engineer approval or electrical testing laboratory recognition and accreditation.

(a) A party may appeal a decision issued by the department pursuant to WAC 296-46B-997 or 296-46B-999. The appeal will be heard by the board in accordance with chapter 34.05 RCW and not assigned to the office of administrative hearings. The board will conduct the hearing and may elect to have the assistance of an administrative law judge in the proceeding.

(b) The notice of appeal, with the certified check payable to the department in the sum of two hundred dollars for appeals pertaining to engineer approval or recognition and accreditation of an electrical testing laboratory, must be filed within twenty days after the notice of the department's decision is served on the subject of said action, either by personal service or using a method by which the mailing can be tracked or the delivery can be confirmed, sent to the last known address of the subject and must be filed by written notice of appeal with the chief electrical inspector, as secretary to the board.

((~~(18)~~)) (19) Judicial review of final decisions of the board.

A party may seek judicial review of a final order of the board within thirty days after service of the decision. Appeals of final decisions and orders must be done in accordance with chapter 34.05 RCW.

((~~(19)~~)) (20) If appeal(s) according to ((~~subsections (12), (13), (15), and (16) of~~)) this section are not filed or the appeal is not filed timely, the proposed decision or action becomes final with no further action on the part of the department or the board.

((~~(20)~~)) (21) Appeals - General requirements.

(a) Appeals according to ((~~subsection (12), (15), or (16) of~~)) this section must specify the contentions of the appellant, and must for subsection (13) or (14) of this section specify to which conclusions of law and findings of fact the party takes exception. The appeal will be based on the record of the hearing. The board will not grant a hearing de novo.

(b) In appeals under subsections (13), (14), (15), ((~~and~~)) (16), and (17) of this section, the issues to be adjudicated must be made as precise as possible, in order that the board may proceed promptly to conduct the hearing on relevant and material matter only.

(c) In all appeals of chapter 19.28 RCW and this chapter heard before the office of administrative hearings or directly by the board, the department has the burden of proof by a preponderance of the evidence.

(d) In all appeals of a decision by the office of administrative hearings to the board, the party aggrieved by the decision of the office of administrative hearings has the burden of proof by a preponderance of the evidence.

Appearance and practice before board.

((~~(21)~~)) (22) No party may appear as a representative in proceedings other than the following:

(a) Attorneys at law qualified to practice before the supreme court of the state of Washington;

(b) Attorneys at law qualified to practice before the highest court of record of another state, if the attorneys at law of the state of Washington are permitted to appear as representatives before administrative agencies of the other state, and if not otherwise prohibited by Washington law; or

(c) An owner, officer, partner, or full-time employee of a firm, association, organization, partnership, corporation, or other entity who appears for the firm, association, organization, partnership, corporation or other entity.

((~~(22)~~)) (23) All persons appearing in proceedings as a representative must conform to the standards of ethical conduct required of attorneys before the courts of Washington. If a person does not conform to these standards, the board may decline to permit the person to appear as a representative in any proceeding before the board.