AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 5/23/03)

WAC 296-46B-010 General. Adopted standards - inspectors - city inspection - variance.

(1) The 2002 edition of the National Electrical Code (NFPA 70 - 2002) including Annex A, B, and C, but excluding Article 80; the 1999 edition of Centrifugal Fire Pumps (NFPA 20 - 1999); the 2002 edition of Emergency and Standby Power Systems (NFPA 110 - 2002); Commercial Building Telecommunications Cabling Standard (ANSI/TIA/EIA 568-B.1-May 2001 including Annex 1 through 5); Commercial Building Standard for Telecommunications Pathway and Spaces (ANSI/TIA/EIA 569-A-December 2001 including Annex 1 through 4); Commercial Building Grounding and Bonding Requirements for Telecommunications (ANSI/TIA/EIA 607 - 1994); Residential Telecommunications Cable Standard (ANSI/TIA/EIA 570-A-1999); and the National Electrical Safety Code (NESC C2-2002 excluding Appendixes A and B) are hereby adopted by reference as part of this chapter. Other codes, manuals, and reference works referred to in this chapter are available for inspection and review in the Olympia office of the electrical section of the department during business hours.

The requirements of this chapter will be observed where there is any conflict between this chapter and the National Electrical Code (NFPA 70), Centrifugal Fire Pumps (NFPA 20), the Emergency and Standby Power Systems (NFPA 110), ANSI/TIA/EIA 568-A, ANSI/TIA/EIA 569-A, ANSI/TIA/EIA 607, ANSI/TIA/EIA 570, or the NESC C2-2002.

The National Electrical Code will be followed where there is any conflict between Centrifugal Fire Pumps (NFPA 20), Emergency and Standby Power Systems (NFPA 110), ANSI/TIA/EIA 568-A, ANSI/TIA/EIA 569-A, ANSI/TIA/EIA 607, ANSI/TIA/EIA 570, or the NESC C2-2002 and the National Electrical Code (NFPA 70).

(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) The department may enforce city electrical ordinances where those governmental agencies do not make electrical inspections under an established program.

(4) A variance from the electrical installation requirements of chapter 19.28 RCW or this chapter may be granted by the department 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. 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 WAC 296-46B-905.

Inspection.

(5) Electrical wiring or equipment subject to this chapter must be sufficiently accessible, at the time of inspection, to permit the inspector to visually inspect the installation to verify conformance with the NEC and any other electrical requirements of this chapter.

(6) Cables or raceways, fished according to the NEC, do not require visual inspection.

(7) Wires pulled into conduit systems are not considered concealed. All required equipment grounding conductors installed in concealed raceway, cable, or flexible conduit systems must be completely installed and made up at the time of the rough-in cover inspection.

(8) 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; or

(b) All wiring and device boxes must be a minimum of 63 mm (2 1/2") 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 1.6 mm (1/16") thick and of appropriate width and height installed to cover the area of the wiring or box.

(9) 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 standards recognized by the department, be listed, or field evaluated. Other than as allowed in WAC 296-46B-030(3), equipment must not be energized until such standards are met unless specific permission has been granted by the chief electrical inspector.

(10) The department will recognize the state department of transportation as the inspection authority for

telecommunications systems installation 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.

(11) 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.

(12) 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.

(13) 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 must be limited to a maximum of 42 circuits.

(iii) CSA listed panelboards used as lighting and appliance 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.

Classification or definition of occupancies.

(14) Occupancies are classified and 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 and correctional occupancies where some degree of restraint or security is required. 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, or 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 operator. 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) "Private alcoholism hospital" means an institution, facility, building, or equivalent designed, organized, maintained, and 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, and 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.

(v) "Alcoholism treatment facility" means a private place or establishment, other than a licensed hospital, operated primarily for the treatment of alcoholism.

(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. This term does not include a facility in the offices of private physicians or dentists, whether for individual or group practice, if the privilege of using such facility is not extended to physicians or dentists outside the individual or group practice. (NEC; Ambulatory Health Care Center.)

(x) "Hospice care center" means any building, facility, place, or equivalent, organized, maintained, and operated specifically to provide beds, accommodations, facilities, and

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, and rehabilitative services required for the care of renal dialysis patients (including inpatient dialysis furnished directly or under arrangement). (NEC; Ambulatory Health Care Center.)

(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 not required.

(xiii) "Residential treatment facility for psychiatrically impaired children and youth" means a residence, place, or facility designed and organized to provide twenty-four-hour residential care and long-term individualized, active treatment for clients who have been diagnosed or evaluated as psychiatrically impaired.

(xiv) "Adult residential rehabilitation center" means a residence, place, or facility designed and organized primarily to provide twenty-four-hour residential care, crisis and short-term care and/or long-term individualized active treatment and rehabilitation for clients diagnosed or evaluated as psychiatrically impaired or chronically mentally ill as defined herein or in chapter 71.24 RCW.

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

(d) Licensed day care centers.

(i) "Child day care center" means a facility providing regularly scheduled care for a group of children one month of age through twelve years of age for periods less than twenty-four hours; except, a program meeting the definition of a family child care home will not be licensed as a day care center without meeting the requirements of WAC 388-150-020(5).

(ii) "School-age child care center" means a program operating in a facility other than a private residence accountable for school-age children when school is not in session. The facility must meet department of licensing requirements and provide adult supervised care and a variety of developmentally appropriate activities.

(iii) "Family child day care home" means the same as "family child care home" and "a child day care facility" licensed by the state, located in the family abode of the person or persons under whose direct care and supervision the child is placed, for the care of twelve or fewer children, including children who reside at the home. Electrical plan review not

required.

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

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

(a) That loads((~~, conductors, and equipment~~)) and 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.

(16) All electrical plans for new or altered electrical installations in educational, institutional, and health or personal care occupancies classified or defined in this chapter must be reviewed and approved before the electrical installation or alteration is started. Approved plans must be available on the job site for use during the electrical installation or alteration and for use by the electrical inspector. Plans are not required to be on the job site for a preliminary electrical ((~~underground conduit installation~~)) inspection if:

(a) Completed electrical plans have been submitted and conditionally accepted by the department for review; and

(b) The permit holder has requested the inspection in writing to the department((~~. Preliminary underground conduit installation~~)) noting that the preliminary electrical inspection is conditional and subject to any changes required from the plan review process. No other inspections will be allowed until the department has approved all submitted plans and the approved plans are on the job site.

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

(18) Plans for these electrical installations within cities that perform electrical inspections within their jurisdiction, and provide an electrical plan review program that equals or exceeds the department's program in plans examiner minimum qualifications per chapter 19.28 RCW, must be submitted to that city for review rather than to the department, unless the agency licensing or regulating the installation specifically requires review by the department.

(19) Refer plans for department review to the Electrical Section, Department of Labor and Industries, P.O. Box 44460, Olympia, Washington 98504-4460.

(20) Plans to be reviewed by the department 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 switchboard and/or 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. Plan review fees are not required to be paid until the review is completed. Plans will not be returned until all fees are paid.

(21) Plan review for new or altered electrical installations of other types of construction may be voluntarily requested by the owner or electrical contractor.

(22) For existing structures where additions or alterations to feeders and services are proposed, Article 220.35(1) NEC may be used. If Article 220.35(1) NEC is used, the following is required:

(a) The date of the measurements.

(b) 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.

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

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

(23) Due to their minimal load requirements, plan review of the following limited energy systems will not be required: Fire alarm, nurse call, intrusion or security alarm, intercom, public address, music, energy management, programmed clock, or telecommunications.

(24) When the service or feeder load calculation is affected five percent or less by the addition or alteration of five or less branch circuits, plan review for the branch circuits may be requested from the department's local inspection office. Permission for such small project plan review may be granted at the discretion of the electrical inspection field supervisor, the plans examiner supervisor, or the chief electrical inspector.

Wiring methods for designated building occupancies.

(25) Wiring methods, equipment and devices for health or personal care, educational and institutional facilities as defined or classified in this chapter and for places of assembly for one hundred or more persons must comply with Tables 010-1 and 010-2 of this chapter and the notes thereto. The local building authority will determine the occupant load of places of

assembly.

(26) Listed tamper-resistant receptacles or listed tamper-resistant receptacle cover plates are required in all licensed day care centers, all licensed children group care facilities and psychiatric patient care facilities where accessible to children five years of age and under. Listed tamper-resistant receptacles are required in psychiatric patient care facilities where accessible to psychiatric patients over five years of age.

Notes to Tables 010-1 and 010-2.

1. Wiring methods in accordance with the NEC unless otherwise noted.

2. Metallic or nonmetallic raceways, MI, MC, or AC cable, except that metallic raceway or cable is required in places of assembly.

3. Limited energy system may use wiring methods in accordance with the NEC.

Table 010-1 Health or Personal Care Facilities

Health or Personal Care Facility Type[1]	Plan Review Required
Hospital	YES
Nursing home unit or long-term care unit	YES
Boarding home or assisted living facility	YES
Private alcoholism hospital	YES
Alcoholism treatment facility	YES
Private psychiatric hospital	YES
Maternity home	YES
Birth center or childbirth center	NO
Ambulatory surgery facility	YES
Hospice care center	NO
Renal hemodialysis clinic	YES
Medical, dental, and chiropractic clinic	NO
Residential treatment facility for psychiatrically impaired children and youth	YES
Adult residential rehabilitation center	YES
Group care facility	NO

Table 010-2 Educational and Institutional Facilities, Places of Assembly or Other Facilities

Educational, Institutional or Other Facility Type	Plan Review Required
Educational[2][3]	YES

Institutional(2)(3)	YES
Places of assembly for 100 or more persons(1)	NO
Child day care center(1)	NO
School-age child care center(1)	NO
Family child day care home, family child care home, or child day care facility(1)	NO

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 4/22/03)

WAC 296-46B-020 General definitions. (1) 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.

(2) **"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.

(3) **"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.

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

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

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

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

(8) **"AWG"** means American Wire Gauge.

(9) **"Board"** means the electrical board established and authorized under chapter 19.28 RCW.

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

(11) **"Category list"** is a list of nonspecific product types determined by the department.

(12) 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.

(13) 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.

(14) **"Certificate of competency"** includes the certificates of competency for master journeyman electrician, master specialty electrician, journeyman, and specialty electrician.

(15) 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.

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

(17) **"Department"** means the department of labor and industries of the state of Washington.

(18) **"Director"** means the director of the department, or the director's designee.

(19) **"Electrical equipment"** includes electrical conductors, conduit, raceway, apparatus, materials, components, and other electrical equipment not exempted by RCW 19.28.006((~~(8)~~)) (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.

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

(21) 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.

(22) **"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.

(23) **"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.

(24) 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.

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

(26) **"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.

(27) **"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).

(28) **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, stand-alone 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) (see Figure 920-1 and Figure 920-2).

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

(30) 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.

(31) An **"identification plate"** is a phenolic or metallic plate or other similar material engraved in block letters at least 1/4" (6 mm) 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, or methods specifically described in this chapter must be used to affix an identification plate to the equipment or enclosure.

(32) **"License"** means a license required under chapter 19.28 RCW.

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

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

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

(36) **"Like-in-kind"** means having similar characteristics such as voltage requirement, current draw, circuit overcurrent and 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.

(37) **"Lineman"** 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 lineman's apprenticeship course; or

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

(38) **"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.

(39) **"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 725.41(A).

(c) NEC, Class 3 circuits powered by a Class 3 power supply

as defined in NEC 725.41(A).

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

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

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

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

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

(44) **"NFPA"** means the National Fire Protection Association. Copies of NFPA documents are available from the National Fire Protection Association.

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

(46) **"Point of contact"** for utility work, means the point at which a customer's electrical system connects to the serving utility system.

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

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

(49) 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.

(50) **"RCW"** means the Revised Code of Washington. Copies of electrical RCWs are available from the department and the office of the code reviser.

(51) 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.

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

(53) 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.

(54) **"Telecommunications network demarcation point"** is as defined in RCW 19.28.400 for both regulated carriers and unregulated local service providers.

(55) **"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.

(56) 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.

(57) **"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.

(58) **"UL"** means Underwriters Laboratory.

(59) **"Utility"** means an electrical utility.

(60) **"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.

(61) **"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.

(62) **"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.

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

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 5/23/03)

WAC 296-46B-030 Industrial control panel and industrial utilization equipment inspection. Specific definitions.

(1) Specific definitions for this section:

(a) **"Department evaluation"** means a review in accordance with subsection (2)(c) of this section.

(b) **"Food processing plants"** include buildings or facilities used in a manufacturing process, but do not include:

(i) Municipal or other government facilities;

(ii) Educational facilities or portions thereof;

(iii) Institutional facilities or portions thereof;

(iv) Restaurants;

(v) Farming, ranching, or dairy farming operations;

(vi) Residential uses; or

(vii) Other installations not used for direct manufacturing purposes.

(c) In RCW 19.28.010, **"industrial control panel"** means a factory or user wired assembly of industrial control equipment such as motor controllers, switches, relays, power supplies, computers, cathode ray tubes, transducers, and auxiliary devices used in the manufacturing process to control industrial utilization equipment. The panel may include disconnecting means and motor branch circuit protective devices. Industrial control panels include only those used in a manufacturing process in a food processing or industrial plant.

(d) **"Industrial plants"** include buildings or facilities used in a manufacturing process, but do not include:

(i) Municipal or other government facilities;

(ii) Educational facilities or portions thereof;

(iii) Institutional facilities or portions thereof;

(iv) Restaurants;

(v) Farming, ranching, or dairy farming operations;

(vi) Residential uses; or

(vii) Other installations not used for direct manufacturing purposes.

(e) **"Industrial utilization equipment"** means equipment directly used in a manufacturing process in a food processing or industrial plant, in particular the processing, treatment, moving, or packaging of a material. Industrial utilization equipment does not include: Cold storage, warehousing, or similar storage equipment.

(f) **"Manufacturing process"** means to make or process a raw

material or part into a finished product for sale using industrial utilization equipment. A manufacturing process does not include the storage of a product for future distribution (e.g., cold storage, warehousing, and similar storage activity).

(g) **"Normal department inspection"** is a part of the department electrical inspection process included with the general wiring inspection of a building, structure, or other electrical installation. Normal department inspection will only be made for equipment solely using listed or field evaluated components and wired to the requirements of the NEC. Fees for the normal department inspections required under this chapter are included in the electrical work permit fee calculated for the installation and are not a separate inspection fee. However, inspection time associated with such equipment is subject to the progress inspection rates in WAC 296-46B-905.

(h) For the purposes of this section, **"panel"** means a single box or enclosure containing the components comprising an industrial control panel. A panel does not include any wiring methods connecting multiple panels or connecting a panel(s) and other electrical equipment.

Safety standards.

(2) Industrial control panels and industrial utilization equipment will be determined to meet the minimum electrical safety standards for installations by:

(a) Listing, or field evaluation of the entire panel or equipment;

(b) Normal department inspection for compliance with codes and rules adopted under this chapter; or

(c) By department evaluation showing compliance with appropriate standards. Appropriate standards are NEMA, ANSI, NFPA 79, UL 508A or International Electrotechnical Commission 60204 or their equivalent. Industrial utilization equipment is required to conform to ((~~an international or United States national~~)) a nationally or internationally recognized standard applicable for the particular industrial utilization equipment. Compliance must be shown as follows:

(i) ((~~For each separate piece of equipment,~~)) The equipment's manufacturer must document, by letter to the equipment owner, the equipment's conformity to an appropriate standard(s). ((~~The letter must be signed and notarized.~~)) The letter must state:

(A) The equipment manufacturer's name;

(B) The type of equipment;

(C) The equipment model number;

(D) The equipment serial number;

(E) The equipment supply voltage, amperes, phasing((~~, fault current interrupting rating~~));

(F) The standard(s) used to manufacture the equipment;

(G) ((~~That the equipment is manufactured in compliance with~~

~~the standard(s) used;~~)) Fault current interrupting rating of the equipment or the owner may provide documentation showing that the fault current available at the point where the building wiring connects to the equipment is less than 10,000 AIC; and

(H) The date the equipment was manufactured((~~;~~

~~(I) The manufacturer must demonstrate an appropriate affiliation or registration with an appropriate standards organization (e.g., NRTL, International Standards Organization, etc.); and~~

~~(J) The methodology used by the manufacturer to ensure that the equipment was constructed according to the standard(s) listed. This methodology should include hazard assessment, documentation, technical construction file, operation manual, and any other applicable information~~)). Equipment that was manufactured prior to January 1, 1985, is not required to meet (c)(i)(F) of this subsection.

(ii) The equipment owner must document, by letter to the chief electrical inspector, the equipment's usage as industrial utilization equipment as described in this section and provide a copy of the equipment manufacturer's letter described in (c)(i) of this subsection. The owner's letter must be accompanied by the fee required in WAC 296-46B-905(14).

For the purposes of this section, the owner must be a food processing or industrial plant as described in this section. ((~~The owner cannot be the equipment's manufacturer, agent, or distributor.~~))

(iii) The chief electrical inspector will evaluate the equipment manufacturer's ((~~and the~~)) letter, equipment owner's letter((~~s~~)), and ((~~if necessary~~)) the individual equipment ((~~and make a determination of a standard's appropriateness using the supplied information~~)).

If the equipment is determined to have had electrical modifications since the date of manufacture, the chief electrical inspector will not approve equipment using this method.

(iv) If required by the chief electrical inspector, the owner must provide the department with a copy, in English, of the standard(s) used and any documentation required by the chief electrical inspector to support the claims made in the equipment manufacturer's or owner's letter. At the request of the owner, the department will obtain a copy of any necessary standard to complete the review. If, per the owner's request, the department obtains the copy of the standard, the owner will be billed for all costs associated with obtaining the standard.

If the industrial utilization equipment has been determined to be manufactured to a standard(s) appropriate for industrial utilization equipment as determined by the chief electrical inspector per RCW 19.28.010(1), the equipment will be marked with a department label.

The department will charge a marking fee as required in WAC 296-46B-905(14). Once marked by the department, the equipment is suitable for installation anywhere within the state without modification so long as the equipment is being used as industrial utilization equipment. If payment for marking is not received by the department within thirty days of marking the equipment, the department's mark(s) will be removed and the equipment ordered removed from service.

(v) If the equipment usage is changed to other than industrial utilization equipment or electrical modifications are made to the equipment, the equipment must be successfully listed or field evaluated by a laboratory approved by the department.

(vi) The equipment must be permanently installed at the owner's facility and inspected per the requirements of RCW 19.28.101.

(3) The department may authorize, on a case-by-case basis, use of the industrial control panel or equipment, for a period not to exceed six months or as approved by the chief electrical inspector after use is begun, before its final inspection, listing, or evaluation.

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 5/23/03)

WAC 296-46B-110 General--Requirements for electrical installations.

012 Mechanical execution of work.

(1) Unused openings. Unused openings in boxes, raceways, auxiliary gutters, cabinets, cutout boxes, meter socket enclosures, equipment cases, or housings shall be effectively closed to afford protection substantially equivalent to the wall of the equipment. Where metallic plugs or plates are used with nonmetallic enclosures, they shall be recessed at least 6 mm (1/4") from the outer surface of the enclosure. Unused openings do not include weep holes, unused mounting holes, or any other opening with less than .15 square inches of open area.

016 Flash protection.

(2) The flash protection marking required by NEC 110.16 must be an identification plate or label approved by the electrical inspector and may be installed either in the field or in the factory. The plate or label may be mounted using adhesive.

022 Identification of disconnecting means.

(3) For the purposes of legibly marking a disconnecting means, as required in NEC 110.22, an identification plate is

required unless the disconnect is a circuit breaker/fused switch installed within a panelboard and the circuit breaker/fused switch is identified by a panelboard schedule. In other than dwelling units, the identification plate must include the identification designation of the circuit source panelboard that supplies the disconnect.

(4) Where electrical equipment is installed to obtain a series combination rating, the identification as required by NEC 110.22, must be in the form of an identification plate that is substantially yellow in color. The words **"CAUTION - SERIES COMBINATION RATED SYSTEM"** must be on the label in letters at least 13 mm (1/2") high.

030 Over 600 volts - general.

(5) Each cable operating at over 600 volts and installed on customer-owned systems must be legibly marked in a permanent manner at each termination point and at each point the cable is accessible. The required marking must use phase designation, operating voltage, and circuit number if applicable.

(6) Only licensed electrical contractors can use the Class B basic electrical inspection - random inspection process. Health care, large commercial, or industrial facilities using an employee who is a certified electrician(s) can use the Class B basic electrical inspection - random inspection process after permission from the chief electrical inspector.

(7) If the Class B basic electrical inspection - random inspection process is used, the following requirements must be met:

(a) The certified electrician performing the installation must affix a Class B installation label on the cover of the panelboard or overcurrent device supplying power to the circuit or equipment prior to beginning the work.

(b) The job site portion of the label must include the following:

(i) Date of the work;

(ii) Electrical contractor's name;

(iii) Electrical contractor's license number;

(iv) Installing electrician's certificate number; and

(v) Short description of the work.

(c) The contractor portion of the label must include the following:

(i) Date of the work;

(ii) Electrical contractor's license number;

(iii) Installing electrician's certificate number;

(iv) Job site address;

(v) Contact telephone number for the job site (to be used to arrange inspection); and

(vi) Short description of the work.

(d) The label must be filled in using sunlight and weather resistant ink.

(e) The electrical contractor must return the contractor's portion of the label to the Department of Labor & Industries, Electrical Section, Chief Electrical Inspector, P.O. 4460, Olympia, WA 98506-4460 within fifteen working days after the job site portion of the Class B installation label is affixed.

(8) Class B basic installation labels will be sold in blocks. Installations where a Class B basic installation label is used will be inspected on a random basis as determined by the department.

(a) If any such random inspection fails, a subsequent installation in the block must be inspected.

(b) If any such subsequent installation fails inspection, all installations in the block must be inspected.

(9) Any electrical contractor or other entity using the Class B basic electrical inspection - random inspection process may be audited for compliance with the provisions for purchasing, inspection, reporting of installations, and any other requirement of usage.

(10) Class B basic electrical work is described in RCW 19.28.006 (2)(b). For the purposes of Class B basic electrical work, a device includes: General use snap switches/receptacles, luminaires, thermostats, speakers, etc., but does not include wiring/cabling systems, isolating switches, magnetic contactors, motor controllers, etc. A cover inspection is required for all fire-wall penetrations.

In addition, Class B basic electrical work includes the like-in-kind replacement in a household of an:

(a) Electrical/gas/oil furnace not exceeding 240 volts and 100 amps when the furnace is connected to an existing branch circuit; and

(b) Air conditioning unit or refrigeration unit not exceeding 240 volts, 30 minimum circuit amps when the air conditioning unit or refrigeration unit is connected to an existing branch circuit.

Class B basic electrical work does not include any work in:

(c) Areas classified as Class 1, Class 2, Class 3, or Zone locations per the NEC;

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

(e) Any work where electrical plan review is required.

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 5/23/03)

WAC 296-46B-210 Wiring and protection--Branch circuits. 008B Other than dwelling units - GFCI requirements.

(1) For the purposes of NEC 210.8(B), all 125-volt, single-phase, 15- and 20-ampere receptacles must have ground-fault circuit-interrupter protection for personnel as required by NEC 210.8(A). Kitchens in other than dwelling units are considered to be any work surface where food and/or beverage preparation occurs and other countertops or islands.

011 Branch circuits.

(2) Circuits must be taken to all unfinished spaces adaptable to future dwelling unit living areas that are not readily accessible to the service or branch circuit panelboard. 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).

((~~052~~)) **012 Arc-fault circuit-interrupter protection.**

(3) For the purpose of NEC 210.12(B), Dwelling Unit Bedroom spaces that:

(a) Are accessed only through the bedroom;

(b) Are ancillary to the bedroom's function; and

(c) Contain branch circuits that supply 125-volt, 15- and 20-ampere, outlets must be protected by an arc-fault circuit interrupter listed to provide protection of the entire branch circuit.

For the purposes of this section, such spaces will include, but not be limited to, spaces such as closets and sitting areas, but will not include bathrooms.

051(B)(5) Receptacle outlet locations.

((~~(3)~~)) (4) Receptacle outlets installed ((~~inside~~)) in appliance garages ((~~will be permitted to~~)) may be counted as a required countertop outlet.

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

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

(a) Window seating; and

(b) Bookcases or cabinets that extend from the floor to a level at least 1.7 meters (five (5) feet six (6) inches) above the floor.

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

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 5/23/03)

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

030(A)(3)(b) Grounding separately derived alternating-current systems.

(1) All tap connections to the common grounding electrode conductor shall be made at an accessible location by a listed connector, an irreversible compression connector listed for the purpose, listed connections to copper busbars not less than 6 mm x 50 mm (1/4 in. x 2 in.), or by exothermic welding process. The tap conductors shall be connected to the common grounding electrode conductor in such a manner that the common grounding electrode conductor remains without a splice or joint.

032 Two or more buildings or structures.

((~~(1)~~)) (2) Effective August 1, 2003, an equipment grounding conductor must be installed with the circuit conductors between buildings and/or structures. A grounded conductor (i.e., neutral) is not permitted to be used in place of a separate equipment grounding conductor between buildings and/or structures.

052 Grounding electrodes.

((~~(2)~~)) (3) If a ground resistance test is not performed to ensure a resistance to ground of twenty-five ohms or less, two or more electrodes as specified in NEC 250.52 must be installed a minimum of six feet apart. However, a temporary construction service is not required to have more than one made electrode.

090 Bonding.

((~~(3)~~)) (4) 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.

((~~(4)~~)) (5) 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.

184 Solidly grounded neutral systems over 1 kV.

((~~(5)~~)) (6) 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 2001 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.

((~~(6)~~)) (7) Multiple grounding. NEC 250.184(B) is replaced with the following:

The neutral of a solidly grounded neutral system may be grounded at more than one point.

(a) Multiple grounding is permitted at the following locations:

(i) Services;

(ii) Underground circuits where the neutral is exposed; and

(iii) Overhead circuits installed outdoors.

(b) Multiple grounding is not allowed:

(i) For new systems where singlepoint and multigrounded circuits form a single system (e.g., where a singlepoint circuit is derived from a multigrounded circuit); or

(ii) In new single phase (i.e., single phase to ground) installations.

((~~(7)~~)) (8) Multigrounded neutral conductor. NEC 250.184(D) is replaced with the following:

Where a multigrounded neutral system is used, the following will apply for new balanced phase to phase circuits and extensions, additions, replacements; and repairs to all existing systems of 1 kV and over:

(a) For existing systems:

(i) The cable's concentric shield must be used as the neutral and all the requirements for neutral conductors described in subsection (6) of this section must be met; or

(ii) The cable's concentric shield must be effectively grounded to a separate bare copper neutral conductor at all locations where the shield is exposed to personnel contact.

(b) For new systems:

A separate copper neutral must be installed and the cable's concentric shield is effectively grounded to the separate neutral at all locations where the shield is exposed to personnel contact.

(c) In addition to (a) and (b) of this subsection, the following is required:

(i) A minimum of two made electrodes, separated by at least six feet, must be installed at each existing and new transformer and switching/overcurrent location and connected to the neutral conductor at that location;

(ii) At least one grounding electrode must be installed and connected to the multigrounded neutral every 400 m (1,300'). The maximum distance between adjacent electrodes must not be more than 400 m (1,300');

(iii) In a multigrounded shielded cable system, the shielding must be grounded at each cable joint that is exposed to personnel contact;

(iv) All exposed noncurrent carrying metal parts (e.g., mounting brackets, manhole covers, equipment enclosures, etc.) must be effectively grounded to the neutral conductor; and

(v) An electrical engineer must provide a specific certification to the electrical plan review supervisor in writing that the design of the multiple grounding installation has been reviewed by the electrical engineer and the design is in accordance with the requirements of chapter 19.28 RCW, this chapter, and normal standards of care. 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.

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 5/23/03)

WAC 296-46B-300 Wiring methods and materials--Wiring methods.

001 Wiring methods.

(1) Cables and raceways for telecommunications, power limited, NEC Class 2 and Class 3 conductors must be installed in compliance with Chapter 3 NEC unless other methods are specifically allowed elsewhere in the NEC, chapter 19.28 RCW, or this chapter.

005 Underground installations.

(2) Induction loops.

See WAC 296-46B-040 for induction detection loops that are made in a public roadway and regulated by a governmental agency.

The department will inspect induction loops that are not installed in public roadways regulated by a governmental agency. These induction loops must comply with the following requirements:

(a) General:

(i) A preformed direct burial inductance loop is designed to be installed within the road surface base (e.g., concrete or asphalt) or below the road surface of a road with an unpaved surface (e.g., gravel or brick pavers);

(ii) A saw-cut inductance detection loop is designed to be installed into a groove saw-cut into an existing paved road surface (e.g., concrete or asphalt);

(iii) The loop system includes the loop and the lead-in conductor;

(iv) The loop system must be:

(A) Tested to assure that at 500 volts DC, the resistance between the conductor and ground equals or exceeds 50 megohms; and

(B) Without splice; or

(C) If spliced, the splice must be soldered and appropriately insulated;

(v) The lead-in conductor must comply with the following:

(A) Must be stranded and have a lay (i.e., twist) of two turns per foot; and

(B) If installed in an electrical raceway;

✐ Are not required to be listed or suitable for wet locations; and

✐ Must have a burial cover of at least 6"; or

(C) If direct buried;

✐ Must be listed for the use; and

✐ Must have a burial cover of at least 18".

(b) Preformed direct burial inductance detection loops must conform with the following:

(i) The loop conductor must be rated for direct burial and be a minimum of No. 16 AWG;

(ii) The loop design must not allow movement of the loop conductor within the outer jacket. The outer jacket containing the loop conductor is not required to be listed;

(iii) The loop yoke casing (i.e., the location where the lead-in conductor is connected to the loop):

(A) Includes any device used to house the "loop to lead-in splice" or to otherwise couple the loop with the lead-in electrical raceway;

(B) Is not required to be listed; and

(C) Must have a coupler that will create a waterproof bond with the electrical raceway, containing the lead-in conductor, or a direct buried lead-in conductor.

(c) Saw-cut inductance detection loops:

(i) The loop conductor must be cross-linked polyethene or EPR Type USE insulation and be a minimum of No. 18 AWG stranded;

(ii) The saw-cut groove must not cut into rebar installed within the roadway.

011 Support of raceways, cables, or boxes in suspended ceilings.

((~~(2)~~)) (3) NEC power limited, Class 2, and Class 3 cables must be secured in compliance with NEC 334.30 and must be secured to boxes in compliance with NEC 314.17.

((~~(3)~~)) (4) Telecommunications cables must be secured in a manner that will not cause damage to the cables and at intervals not exceeding five feet. Cables are considered adequately supported when run through holes in building structural elements or other supporting elements. Telecommunications cables may be fished into inaccessible hollow spaces of finished buildings. Clamps or fittings are not required where telecommunications cables enter boxes.

((~~(4)~~)) (5) Optical fiber cables must be secured in a manner that will not cause damage to the cables and at intervals not exceeding five feet. Cables are considered adequately supported when run through holes in building structural elements or other supporting elements. Optical fiber cables may be fished into inaccessible hollow spaces of finished buildings. Supports must allow a bending radius that will not cause damage to the cables.

((~~(5)~~)) (6) Where not restricted by the building code official or Article 300 NEC, the wires required in NEC 300.11(a) may support raceways, cables, or boxes under the following conditions:

(a) Raceways and/or cables are not larger than three-

quarter-inch trade size;

(b) No more than two raceways or cables are supported by a support wire. The two-cable limitation does not apply to telecommunications cables, Class 2 cables, or Class 3 cables on support wires installed exclusively for such cables. The support wire must be adequate to carry the cable(s) weight and all attached cables must be secured with approved fittings; or

(c) Raceways and cables are secured to the support wires by fittings designed and manufactured for the purpose.

In addition to (a), (b), and (c) of this subsection, the following conditions must be complied with:

(d) The support wires are minimum #12 AWG and are securely fastened to the structural ceiling and to the ceiling grid system; ((~~or~~)) and

(e) The raceways or cables serve equipment that is located within the ceiling cavity or is mounted on or supported by the ceiling grid system. Telecommunications cables, Class 2 cables, or Class 3 cables supported as required by this section, may pass through ceiling cavities without serving equipment mounted on or supported by the ceiling grid system.

017 Conductors in raceway.

((~~(6)~~)) (7) Cables will be permitted in all raceway systems if:

(a) The cable is appropriate for the environment; and

(b) The percentage fill does not exceed that allowed in NEC Chapter 9, Table 1.

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 5/23/03)

WAC 296-46B-314 Wiring methods and materials--Outlet, device, pull and junction boxes.

001 Boxes and fittings.

(1) Single conductors, cables, taps, or splices installed in an open bottom junction box or handhole must be suitable for direct burial. However, an open bottom box manufactured specifically for electrical use will be permitted to be used as an electrical junction box to enclose single conductors, cables, taps, or splices rated for wet locations, only under the following conditions:

(a) In vehicular traffic areas the box must be rated for not less than H-20 loading and be provided with a bolted, hinged, or slide-on lid embossed with the identification "ELECTRIC" or "ELECTRICAL."

(b) In incidental vehicular traffic areas (e.g., parks,

sports fields, sidewalks, grass lawns, etc.) the box must be rated for not less than H-10 loading and be provided with a bolted, hinged, or slide-on lid embossed with the identification "ELECTRIC" or "ELECTRICAL."

(c) In nonvehicular traffic areas (e.g., flower beds, patio decks, etc.) the box must be designed for the purpose and be provided with a lid embossed with the identification "ELECTRIC" or "ELECTRICAL."

(d) All conductors must be installed in approved electrical raceways that enter vertically from the open bottom of the enclosure or horizontally from the sides of the enclosure at least 150 mm (6 in.) from the sand or gravel at the bottom of the enclosure. These raceways must be fitted with a bushing, terminal fitting, or seal incorporating the physical protection characteristics of a bushing, and project not less than 5 cm (2") above the bottom surface material. The bottom surface material must be pea gravel or sand a minimum of 5 cm (2") thick or more if required by the box manufacturer.

(2) Conduit bodies, junction, pull, and outlet boxes must be installed so that the wiring contained in them is accessible without removing any part of the building structure, including insulation material.

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 5/23/03)

WAC 296-46B-334 Wiring methods and materials--Nonmetallic-sheathed cable.

010 Nonmetallic-sheathed cable.

((~~This section is in addition to the uses permitted/not permitted for nonmetallic-sheathed cable (Type NM) described in NEC 334.10 and NEC 334.12.~~

~~Nonmetallic-sheathed cable (Type NM) is permitted in all one- and two-family dwellings.~~

~~Nonmetallic-sheathed cable (Type NM) not allowed, except in one- and two-family dwellings, in any multifamily or any other structure exceeding three floors above grade.~~

~~For the purpose of this section, the first floor of a structure will be the lowest floor that has fifty percent or more of the exterior wall surface level with or above finished exterior grade. One additional level that is the first level and not designed for human habitation and used only for vehicle parking, storage, or similar use will be permitted.~~)) (1) This section replaces NEC 334.10(2). In multifamily dwellings, Type NM, Type NMC, and Type NMS cable(s) may be used in structures of

Types III, IV, and V construction except as prohibited in NEC 334.12.

(2) This section replaces NEC 334.10(3). In all other structures, Type NM, Type NMC, and Type NMS cable(s) may be used in structures of Types III, IV, and V construction except as prohibited in NEC 334.12. All cable(s) must be concealed within walls, floors, or ceilings that provide a thermal barrier of material that has at least a 15-minute finish rating as identified in listings of fire-rated assemblies.

(3) The building classification, for subsections (1) and (2) of this section, will be as determined by the building official. For the purposes of this section, Type III, IV and V may be as defined in the International Building Code adopted in the state of Washington. The installer must provide the inspector documentation substantiating the type of building construction and finish material rating(s) prior to any electrical inspection.

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 5/23/03)

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

004 Luminaires.

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

018 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 where the luminaires are provided with ground-fault circuit-interrupter protection and marked "no equipment ground."

030 Flexible cord connection pendant boxes and electric discharge luminaires.

((~~(2)~~)) (3) The flexible cord and cord connection must comply with NEC 410.30 and the following:

(a) Connection to a suspended pendant box must utilize an integral threaded hub;

(b) The length of the cord for a suspended pendant drop from a permanently installed junction box to a suitable tension take-up device must not exceed six 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 03-09-111, filed 4/22/03, effective 5/23/03)

WAC 296-46B-430 Motors, motor circuits, and controllers. 007 Marking on motors and multimotor equipment.

((~~(1) All motors required to be listed in the NEC or elsewhere in this chapter must be listed or field evaluated by a laboratory. Other motors are not required to be listed or field evaluated by a laboratory.~~

~~(2)~~)) 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) standards for motors((~~. This requirement does not apply to~~)) except motors that:

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

((~~(b)~~)) (2) Are a component part of industrial utilization equipment approved by the department per WAC 296-46B-030.

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 4/22/03)

WAC 296-46B-900 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 completely and legibly filled out and readily available;

(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 and/or a legible map is provided for the inspectors' use.

(2) An electrical work permit is valid for only one specific site address.

(3) Except as provided in subsection (8) of this section, a valid electrical work permit must be posted on the job site at a readily accessible and conspicuous location prior to beginning electrical work and at all times until the electrical inspection process is completed.

Permit - responsibility for.

(4) 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 by that entity. 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.

(5) 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.

(6) Except for emergency repairs to existing electrical systems, electrical work permits must be obtained and posted at the job site prior to beginning the installation or alteration. An electrical work permit for emergency repairs to existing electrical systems must be obtained and posted at the job site no later than the next business day after the work is begun.

(7) Fees must be paid in accordance with the inspection fee schedule, WAC 296-46B-905. 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.

Permit - requirements for.

(8) 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 except for:

(a) Travel trailers((~~, or~~));

(b) Class A basic electrical work which includes the **like-in-kind replacement** of a: Contactor, relay, timer, starter,

circuit board, or similar control component; household appliance; circuit breaker((~~,~~)); fuse((~~,~~)); residential luminaire((~~,~~)); lamp((~~,~~)); snap switch((~~,~~)); dimmer((~~,~~)); receptacle outlet((~~,~~)); thermostat((~~,~~)); heating element((~~,~~)); luminaire ballast with an exact same ballast((~~, contactor, relay, timer, starter, circuit board, or similar control component, or 10~~)); ten horsepower or smaller motor; and induction detection loops described in WAC 296-46B-300(2) and used to control gate access devices.

(9) 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 installations, 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.

Permit - inspection and approval.

(10) Requests for inspections.

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

(b) Requests for after hours or weekend inspections 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) Emergency requests to inspect repairs necessary to preserve life and equipment safety may be requested at any time.

(d) 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.

(11) Final inspection approval will not be made until all inspection fees are paid in full.

Permit - duration/refunds.

(12) Electrical work permits will expire one year after the date of purchase unless electrical work is actively and consistently in progress and inspections requested. Refunds are not available for:

(a) Expired electrical work permits;

(b) Electrical work permits where the electrical installation has begun; or

(c) Any electrical work permit where an electrical inspection or electrical inspection request has been made.

Permit - annual telecommunications.

(13) The chief electrical inspector 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.

Permit - annual electrical.

(14) The chief electrical inspector 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.

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 single plant or building location. This type of permit does not include new or increased service or new square footage.

AMENDATORY SECTION (Amending WSR 03-18-089, filed 9/2/03, effective 10/3/03)

WAC 296-46B-905 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.	$((~~70.80~~)) 73.00
Each additional 500 sq. ft. or portion of	$((~~22.70~~)) 23.40
(ii) Each outbuilding or detached garage - inspected at the same time as a dwelling unit on the property	$((~~29.60~~)) 30.50
(iii) Each outbuilding or detached garage - inspected separately	$((~~46.70~~)) 48.10
(iv) Each swimming pool - inspected with the service	$((~~46.70~~)) 48.10

(v) Each swimming pool - inspected separately	$((~~70.80~~)) 73.00
(vi) Each hot tub, spa, or sauna - inspected with the service	$((~~29.60~~)) 30.50
(vii) Each hot tub, spa, or sauna - inspected separately	$((~~46.70~~)) 48.10
(viii) Each septic pumping system - inspected with the service	$((~~29.60~~)) 30.50
(ix) Each septic pumping system - inspected separately	$((~~46.70~~)) 48.10

(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	$((~~76.30~~)) 78.70	$((~~22.70~~)) 23.40
201 to 400	$((~~94.80~~)) 97.80	$((~~46.70~~)) 48.10
401 to 600	$((~~130.20~~)) 134.30	$((~~64.90~~)) 66.90
601 to 800	$((~~167.00~~)) 172.30	$((~~89.00~~)) 91.80
801 and over	$((~~238.10~~)) 245.70	$((~~178.60~~)) 184.30

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

(i) Each altered service and/or altered feeder

Ampacity	Service or Feeder
0 to 200	$((~~64.90~~)) 66.90
201 to 600	$((~~94.80~~)) 97.80
601 and over	$((~~142.90~~)) 147.40

(ii) Maintenance or repair of a meter or mast (no alterations to the service or feeder)	$((~~35.20~~)) 36.30

(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)	$((~~46.70~~)) 48.10
(ii) Each additional circuit (see note above)	$((~~5.20~~)) 5.30

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

(i) Mobile home or modular home service or feeder only	$((~~46.70~~)) 48.10
(ii) Mobile home service and feeder	$((~~76.30~~)) 78.70

(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	$((~~46.70~~)) 48.10
(ii) Each additional site service; or additional site feeder inspected at the same time as the first service or feeder	$((~~29.60~~)) 30.50

(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 from (2)(a)(table) of 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.

Service/feeders

Ampacity	Service/Feeder	Additional Feeder
0 to 100	$((~~76.30~~)) 78.70	$((~~46.70~~)) 48.10
101 to 200	$((~~94.80~~)) 95.80	$((~~59.40~~)) 61.30
201 to 400	$((~~178.60~~)) 184.30	$((~~70.80~~)) 73.00
401 to 600	$((~~208.20~~)) 214.80	$((~~83.20~~)) 85.80
601 to 800	$((~~269.10~~)) 277.70	$((~~113.30~~)) 116.90
801 to 1000	$((~~328.50~~)) 339.00	$((~~137.10~~)) 141.40
1001 and over	$((~~358.40~~)) 369.80	$((~~191.20~~)) 197.30

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

(i) Service/feeders

Ampacity	Service or Feeder
0 to 200	$((~~76.30~~)) 78.70
201 to 600	$((~~178.60~~)) 184.30
601 to 1000	$((~~269.10~~)) 277.70
1001 and over	$((~~298.90~~)) 308.40

(ii) Maintenance or repair of a meter or mast (no alterations to the service or feeder) $((~~64.90~~)) 66.90

(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 $((~~59.40~~)) 61.30

(ii) Each additional circuit per branch circuit panel $((~~5.20~~)) 5.30

(d) **Over 600 volts surcharge per permit.** $((~~59.40~~)) 61.30

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

Note:
(1) See WAC 296-46B-527 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 shall be the greater of the fee from this subsection or the portal-to-portal fee.
Temporary services, temporary stage or concert productions.

Ampacity	Service or Feeder	Additional Feeder
0 to 60	$((~~40.90~~)) 42.20	$((~~21.00~~)) 21.67
61 to 100	$((~~46.70~~)) 48.10	$((~~22.70~~)) 23.40
101 to 200	$((~~59.40~~)) 61.30	$((~~29.60~~)) 30.50
201 to 400	$((~~70.80~~)) 73.00	$((~~35.30~~)) 36.40
401 to 600	$((~~94.80~~)) 97.80	$((~~46.70~~)) 48.10
601 and over	$((~~107.50~~)) 110.94	$((~~53.60~~)) 55.30

(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	$((~~5.20~~)) 5.30
(b) Towers - when not inspected at the same time as a service and feeders - 1 to 6 towers	$((~~70.80~~)) 73.00
(c) Each additional tower	$((~~5.20~~)) 5.30

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

(a) **Low-voltage thermostats** controlling a single piece of utilization equipment.

(i) First thermostat	$((~~35.30~~)) 36.40
(ii) Each additional thermostat inspected at the same time as the first	$((~~11.10~~)) 11.40

(b) **Low-voltage systems and telecommunications systems.** Includes all telecommunications installations, fire alarm and burglar alarm, nurse call, intercom, security systems, energy management control systems, HVAC/refrigeration control systems (other than thermostats above), industrial and automation control systems, lighting control systems, stand-alone sound systems, public address, and similar low-energy circuits and equipment.

(i) First 2500 sq. ft. or less	$((~~40.90~~)) 42.20
(ii) Each additional 2500 sq. ft. or portion thereof	$((~~11.10~~)) 11.40

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

(i) First sign (no service included)	$((~~35.30~~)) 36.40
(ii) Each additional sign inspected at the same time on the same building or structure	$((~~16.80~~)) 17.30

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

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

(i) Berth at a marina or dock	$((~~46.70~~)) 48.10
(ii) Each additional berth inspected at the same time	$((~~29.60~~)) 30.50

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

(i) Yard pole, pedestal, or other meter loops only	$((~~46.70~~)) 48.10
(ii) Meters installed remote from the service equipment and inspected at the same time as a service, temporary service or other installations	$((~~11.10~~)) 11.40

(f) **Emergency inspections requested outside of normal working hours.**

Regular fee plus surcharge of:	$((~~89.00~~)) 91.80

(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	$((~~64.90~~)) 66.90

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

Note:
See WAC 296-46B-900(14).

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	$((~~1,710.80~~)) 1,765.50
4 to 6 plant electricians	24	$((~~3,423.30~~)) 3,532.80
7 to 12 plant electricians	36	$((~~5,134.60~~)) 5,298.90
13 to 25 plant electricians	52	$((~~6,847.10~~)) 7,066.20
More than 25 plant electricians	52	$((~~8,559.60~~)) 8,833.50

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

Note:
(1) See WAC 296-46B-900(13).
(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	$((~~141.60~~)) 146.10
Each additional hour, or portion thereof, of portal-to-portal inspection time	$((~~70.80~~)) 73.00

(j) **Permit requiring ditch cover inspection only.**

Each 1/2 hour, or portion thereof	$((~~35.30~~)) 36.40
(k) **Cover inspection for elevator/conveyance installation. This item is only available to a licensed/registered elevator contractor.**	$((~~59.40~~)) 61.30
(6) **Carnival inspections.**	
(a) **First carnival field inspection each calendar year.**	
(i) Each ride and generator truck	$((~~16.80~~)) 17.30
(ii) Each remote distribution equipment, concession, or gaming show	$((~~5.20~~)) 5.30
(iii) If the calculated fee for first carnival field inspection above is less than $89.00, the minimum inspection fee shall be:	$((~~89.00~~)) 91.80
(b) **Subsequent carnival inspections.**	
(i) First ten rides, concessions, generators, remote distribution equipment, or gaming show	$((~~89.00~~)) 91.80
(ii) Each additional ride, concession, generator, remote distribution equipment, or gaming show	$((~~5.20~~)) 5.30
(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	$((~~70.80~~)) 73.00
(ii) Subsequent inspection of a single concession or ride, not part of a carnival	$((~~46.70~~)) 48.10
(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.)	$((~~70.80~~)) 73.00
(b) Submitter notifies the department that work is ready for inspection when it is not ready.	$((~~35.30~~)) 36.40
(c) Additional inspection required because submitter has provided the wrong address or incomplete, improper or illegible directions for the site of the inspection.	$((~~35.30~~)) 36.40
(d) More than one additional inspection required to inspect corrections; or for repeated neglect, carelessness, or improperly installed electrical work.	$((~~35.30~~)) 36.40
(e) Each trip necessary to remove a noncompliance notice.	$((~~35.30~~)) 36.40
(f) Corrections that have not been made in the prescribed time, unless an exception has been requested and granted.	$((~~35.30~~)) 36.40
(g) Installations that are covered or concealed before inspection.	$((~~35.30~~)) 36.40
(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.	$((~~35.30~~)) 36.40
(9) **Plan review.**	
Fee is thirty-five percent of the electrical work permit fee as determined by WAC ((~~296-46-910~~)) 296-46B-905, plus a plan review submission and shipping/handling fee of:	$((~~59.40~~)) 61.30
(a) Supplemental submissions of plans per hour or fraction of an hour of review time.	$((~~70.80~~)) 73.00

(b) Plan review shipping and handling fee.	$((~~16.80~~)) 17.30
(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:	$((~~70.80~~)) 73.00
(12) **Refund processing fee.**	
All requests for permit fee refunds will be assessed a processing fee. (Refund processing fees will not be charged for electrical contractors, using the contractor deposit system, who request less than twenty-four refunds during a rolling calendar year.)	$((~~11.10~~)) 11.40
(13) **Variance request processing fee.**	
Variance request processing fee. This fee is nonrefundable once the transaction has been validated.	$((~~70.80~~)) 73.00
(14) **Marking of industrial utilization equipment.**	
(a) **Standard(s) letter review (per hour of review time).**	$((~~70.80~~)) 73.00
(b) **Equipment marking - charged portal-to-portal per hour:**	$((~~70.80~~)) 73.00
(c) **All travel expenses and per diem for in/out-of-state review and/or equipment marking 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 (b) of this subsection.**	
(15) **Class B basic electrical work labels.**	
(a) **Block of twenty Class B basic electrical work labels (not refundable).**	$200.00
(b) **Reinspection of Class B basic electrical work to assure that corrections have been made (per 1/2 hour).**	$36.40

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 4/22/03)

WAC 296-46B-910 Electrical/telecommunications contractor's license, administrator certificate and examination, master electrician certificate and examination, temporary, electrician certificate and examination, temporary electrician permit, 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.
(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. (Nonrefundable after license has been issued.)**	
(a) **Per twenty-four-month period**	$((~~228.60~~)) 232.90
(b) **Reinstatement of a general or specialty contractor's license after a suspension**	$((~~45.90~~)) 47.30
(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.)	$((~~28.40~~)) 29.30
(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)	$((~~68.40~~)) 70.50
(ii) Master electrician or administrator retest examination fee (when administered by the department)	$((~~80.00~~)) 82.50
(iii) Journeyman or specialty electrician examination fee (first test or retest when administered by the department)	$((~~51.40~~)) 53.00
(iv) Certification examination review fee	$((~~105.90~~)) 109.20
(c) **Original certificates (nonrefundable after certificate has been issued)**	
(i) Electrical administrator original certificate (except **09** telecommunication)	$((~~102.15~~)) 105.40
(ii) Telecommunications administrator original certificate (for **09** telecommunications)	$((~~68.10~~)) 70.20
(iii) Temporary specialty electrical administrator certificate (valid as allowed and described in WAC 296-46B-930(2)) (valid for twelve months)	$((~~62.45~~)) 64.40
(iv) Master electrician original certificate ("grandfather" request)	$((~~129.15~~)) 133.20
(v) Master electrician exam application (includes original certificate and application processing fee) **($((~~28.40~~)) 29.30 is nonrefundable after application is submitted)**	$((~~130.55~~)) 134.70

(vi) Journeyman or specialty electrician application (includes original certificate and application processing fee) **($((~~28.40~~)) 29.30 is nonrefundable after application is submitted)**	$((~~73.30~~)) 75.60
(vii) Training certificate	$((~~36.00~~)) 37.10
(A) 0% supervision modified training certificate. Includes trainee update of hours (i.e., submission of affidavit of experience) **($((~~43.60~~)) 44.90 is nonrefundable after application is submitted)**	$((~~65.40~~)) 67.40
(B) 75% supervision modified ((~~supervision~~)) training certificate.	$((~~43.60~~)) 44.90
(C) Unsupervised training certificate as allowed by RCW 19.28.161 (4)(b).	$((~~21.80~~)) 22.40
(viii) Temporary electrician permit (valid as allowed and described in WAC 296-46B-940(27))	$((~~22.70~~)) 23.40
(ix) Temporary specialty electrician permit (valid as allowed and described in WAC 296-46B-940(28)) **($((~~28.40~~)) 29.30 is nonrefundable after the application for the original specialty electrician certificate is submitted) ($((~~51.10~~)) 52.70 is nonrefundable after temporary permit is issued)**	$((~~99.00~~)) 99.00
(d) **Certificate renewal (nonrefundable)**	
(i) Master electrician or administrator certificate renewal	$((~~129.15~~)) 133.20
(ii) Telecommunications **(09)** administrator certificate renewal	$((~~86.10~~)) 88.80
(iii) Late renewal of master electrician or administrator certificate	$((~~258.30~~)) 266.50
(iv) Late renewal of telecommunications **(09)** administrator certificate	$((~~172.20~~)) 177.70
(v) Journeyman or specialty electrician certificate renewal	$((~~68.10~~)) 70.20
(vi) Late renewal of journeyman or specialty electrician certificate	$((~~136.20~~)) 140.50
(vii) Trainee certificate renewal or update of hours (i.e., submission of affidavit of experience)	$((~~43.60~~)) 44.90
(e) **Reciprocal certificate (nonrefundable)**	
(i) Master electrician reciprocal certificate	$((~~129.15~~)) 132.20
(ii) Journeyman or specialty electrician reciprocal certificate	$((~~73.30~~)) 75.60
(f) **Certificate - reinstatement (nonrefundable)**	
(i) Reinstatement of a suspended master electrician or administrator's certificate (in addition to normal renewal fee)	$((~~45.90~~)) 47.30

(ii) Reinstatement of suspended journeyman, or specialty electrician certificate (in addition to normal renewal fee)	$((~~21.80~~)) 22.40
(g) **Assignment/unassignment of master electrician/administrator designation (nonrefundable)**	$((~~34.00~~)) 35.00
(3) **Certificate/license((~~– replacement for lost or damaged certificate/license. (Nonrefundable.)~~)).**	((~~$15.00~~))
(a) Replacement for lost or damaged certificate/license. (Nonrefundable.)	$15.40
(b) Optional display quality General Master Electrician certificate.	$25.00
(4) **Continuing education courses or instructors. (Nonrefundable.)**	
(a) ((~~**Continuing education course submittal and approval (per course)**~~	~~$43.70~~
~~(b) **Continuing education course renewal (per course)**~~	~~$21.80~~))
If the course or instructor review is performed by the electrical board or the department	
The course or instructor review	$45.00
(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	$109.50
(5) **Copy fees. (Nonrefundable.)**	
(a) **Certified copy of each document (maximum charge per file):**	$((~~48.30~~)) 49.80
((~~(a)~~)) (i) First page:	$((~~21.80~~)) 22.40
((~~(b)~~)) (ii) Each additional page:	$2.00
(b) Replacement RCW/WAC printed document:	$5.00
(6) **Refund processing fee. (Nonrefundable.)**	$((~~11.10~~)) 11.40
(7) **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)).	$((~~500.00~~)) 516.00

(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)).	$((~~250.00~~)) 258.00

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 4/22/03)

WAC 296-46B-911 Electrical testing laboratory fees. The amount of the fee due is calculated based on the fee effective at the date payment is made.

Initial filing fee: (Nonrefundable)	$ ((~~500.00~~)) 516.00
Initial accreditation fee:	
1 product category	$ ((~~250.00~~)) 258.00
Each additional category for the next 19 categories	$ ((~~100.00~~)) 103.20 each
Maximum for 20 categories or more	$((~~2150.00~~)) 2,218.80
Renewal fee: (Nonrefundable)	50% of initial filing fee
Renewal of existing accreditations	
Each additional category for the next 19 categories	$ ((~~100.00~~)) 103.20 each
Maximum for 20 categories or more	$((~~2150.00~~)) 2,218.80

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 4/22/03)

WAC 296-46B-915 Civil penalty schedule.

Notes:

(A) Each day that a violation occurs will be a separate offense.

(B) 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.

(C) In case of continued, repeated or gross violation of the provisions of chapter 19.28 RCW or this chapter, or if property damage or bodily injury occurs as a result of the failure of a person, firm, partnership, corporation, or other entity to comply with chapter 19.28 RCW or this chapter the department may double the penalty amounts shown in subsections (1) through (13) of this section.

(D) 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.

(E) ((~~The penalty amount will be waived for the first offense. If a subsequent offense occurs within a three year period, the first offense penalty amount will be reinstated and immediately due and payable without further right of appeal.~~)) Upon written request to the chief electrical inspector, the penalty amount will be waived for the first citation issued within a three-year period. The written request must be received by the department no

later than twenty days after notice of penalty. If a subsequent citation is issued within a three-year period and found to be a final judgment, the penalty amount for the first citation will be reinstated and immediately due and payable. Penalty waivers will not be granted for any citation being appealed under WAC 296-46B-995(11).

(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.

(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
Second offense:	$1,500
Third offense:	$3,000
Each offense thereafter:	$6,000

(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:	$100 (((~~see note E~~)))
Each offense thereafter:	$500

(3) **Performing electrical work without having a valid certificate of competency or electrical training 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 (see note E)
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 (see note E)
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 (see note E)
Second offense:	$1,000
Each offense thereafter:	$2,000

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

Exception: In cases of emergency repairs 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.

First offense:	$250
Homeowner - First offense:	$50
Second offense:	$1,000
Each offense thereafter:	$2,000

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

First offense:	$100 (see note E except for RCW 19.28.061 (5)(a) or 19.28.430 (3)(a))
Second offense:	$750
Third offense:	$1,500
Each offense thereafter:	$3,000

(13) **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.**

RCW 19.28.161 through 19.28.271 and the rules developed pursuant to them.

First offense:	$250
Each offense thereafter:	$500

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 03-09-111, filed 4/22/03, effective 4/22/03)

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.

(2) All specialties listed in this subsection may perform the work described within their specific specialty as allowed by the occupancy and location described within the specialty's scope of work. **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 not exceeding three floors above grade. 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 occupancies defined in WAC 296-46B-010((~~(12)~~)) (14), or commercial

occupancies such as: Motels, hotels, offices, assisted living facilities, or stores.

(b) **Pump and irrigation (03):** Limited to the electrical connection of circuits, feeders, controls, low voltage, related telecommunications, and services to supply: Domestic 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 (see Table 920-1).

(c) **Domestic well (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 used in residential potable water or residential sewage disposal systems.

(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, or repair exterior luminaires that are mounted on a pole or other structure with like-in-kind components.

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

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

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

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

(D) To 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.

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

On the effective date of this rule, any entity holding a

currently valid electrical contractor's license, electrical administrator's certificate, master specialty electrician's certificate, or specialty electrician's certificate in this specialty will be issued combination specialty status for HVAC/refrigeration **(06A)** at no cost and without examination.

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

(i) See WAC 296-46B-020 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 (see Figure 920-1 and Figure 920-2);

(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;

(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 (see Figure 920-2); 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 floors on/above grade; or

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

✐ Does not pass between floors;

✐ 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 floors on/above grade.

(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 floors 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).

Place illustration here.

Place illustration here.

(g) **Nonresidential maintenance (07):** Limited to maintenance, repair and replacement of like-in-kind existing electrical equipment and conductors ((~~on industrial or commercial premises~~)). 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.

This specialty may perform the work defined in (h), (i), (j), (k), and (l) of this subsection (see Table 920-1).

(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 luminaires, water heating equipment, ranges, electric heaters, similar household type appliances, and all permit exempted work as defined in WAC 296-46B-900.

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.

(j) **Restricted nonresidential maintenance (07C):** This specialty may maintain, repair, or replace (like-in-kind) existing luminaires, water heating equipment, ranges, electric heaters, similar household type appliances, and all permit exempted work as defined in WAC 296-46B-900 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 (see Table 920-1).

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).

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

((~~(i) For the purposes of this subsection:~~

~~(A) The appliance or 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 utilization equipment include, but are not limited to: Dish washers, ovens, water heating equipment, 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).~~))

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

((~~(i) For the purposes of this subsection:~~

~~(A) The utilization equipment must be:~~

~~Self-contained on a single skid or frame;~~

~~Factory built to standardized sizes or types;~~

~~Connected as a single unit to a single source of electrical power limited to a maximum of 600 volts. The equipment may also be connected to a separate single source of electrical control power limited to a maximum of 250 volts; and~~

~~Listed or field evaluated by a laboratory or approved by the department under WAC 296-46B-030. See WAC 296-46B-430 for additional information on motors.~~

~~(B) Equipment includes, but is not limited to: Household type appliances, water heating equipment, office equipment, vehicle repair equipment, commercial kitchen equipment, self-contained hot tubs and spas, motors, pumps, grinders, scales,~~

~~vehicle repair equipment, welders, air compressors, blowers, dryers, cranes/lifts, kilns, commercial/industrial utilization equipment, commercial/industrial water processing equipment, and similar utilization equipment.~~

~~(C) Equipment does not include systems and equipment such as: Alarm/energy management/similar systems, luminaires, furnaces/heaters/air conditioners/heat pumps used for the conditioning of occupant air, or door/gate/similar equipment.~~

~~(ii) This specialty includes:~~

~~(A) The in-place, like-in-kind replacement of the equipment if the same unmodified electrical circuit is used to supply the equipment being replaced;~~

~~(B) The in-place, like-in-kind replacement or repair of electrical components within the equipment;~~

~~(C) The in-place, like-in-kind replacement or repair of remote control components that are integral to the operation of the equipment (e.g., telemetry-signaling devices, pressure switches, limit switches, photoelectric sensors, etc.); or~~

~~(D) The disconnection, replacement, 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.~~

~~(iii) This specialty does not include the installation, repair, or modification of wiring that interconnects equipment and/or remote components, branch circuit conductors, services, feeders, panelboards, disconnect switches, or raceway/conductor systems interconnecting multiple equipment or other electrical components.~~)) See RCW 19.28.095 for the equipment repair scope of work.

(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.

(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.

Table 920-1 Allowed Scope of Work Crossover

Place illustration here.

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 4/22/03)

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 the individual legal owner(s) 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 prorate the electrical/telecommunications contractor's license fee according to the license period.

(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) The department may deny renewal 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) to the department.

Electrical/telecommunications contractor cash or securities deposit.

(4) Cash or securities deposit. 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.

Telecommunications contractor insurance.

(5) 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.

(6) 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 written 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.

(7) 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;

(b) Underground landscape sprinkler systems;

(c) Underground landscape lighting; and

(d) Residential garage doors.

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

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

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

(8) 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.

(9) Firms who install listed plug and cord connected 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 exceed 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 equipment must be a single manufactured unit that does not require any electrical field assembly except for the installation of the plug and cord.

(10) 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.

(11) 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.

(12) 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. Refer to RCW 19.28.261 for exemptions from licensing and certification.

(13) 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.

(14) 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.

((~~Volunteering for nonprofit organizations such as churches, senior centers, etc., is generally not allowed. Volunteering for these types of organizations may be allowed under the following guidelines:~~

~~(a) A local nonprofit organization, whose members own the building or structure, may solicit a volunteer electrical contractor to oversee the electrical installation. The organization's members or other persons may volunteer to perform electrical work for the organization, under the supervision of the volunteer electrical contractor, if they are properly certified by the department as electricians or trainees.~~

~~(b) The volunteer electrical contractor and its administrator will be responsible to maintain proper ratio, per RCW 19.28.161, of certified electricians to certified trainees on the job site at all times. The volunteer electrical contractor must either provide on-site supervision or designate one of the volunteer electricians as the on-site supervisor.~~

~~(c) The volunteer electrical contractor must purchase the electrical work permit, and ensure that the electrical installation is in compliance with the requirements of chapter 19.28 RCW and chapter 296-46B WAC.~~))

(15) 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.

Exemptions - electrical utility and electrical utility's contractor.

(16) Electrical utility system exemption. Neither a serving electrical utility nor a contractor 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 and other apparatus or appliances used to measure the consumption of electricity.

(a) Street lighting exemption. A serving electrical utility is not required to have an electrical contractor's license or electrical permit to work on electrical equipment used in the lighting of streets, alleys, ways, or public areas or squares.

Utilities are allowed to install outside area lighting on privately owned property where the lighting fixture(s) is installed on a utility owned pole(s) used to support utility owned electric distribution wiring or equipment designed to supply electrical power to a customer's property.

Utilities are allowed to install area lighting outside and not attached to a building or other customer owned structure when the areas are outside publicly owned buildings such as: Publicly owned/operated parking lots, parks, schools, play fields, beaches, and similar areas; or the areas are privately owned where the public has general, clear and unrestricted access such as: Church parking lots, and commercial property public parking areas and similar areas.

Utilities are not allowed to install area lighting when the area is privately owned and the public does not have general, clear, and unrestricted access such as industrial property, residential property and controlled commercial property where the public's access is otherwise restricted.

Utilities are not allowed to install area lighting where the lighting is supplied from a source of power derived from a customer owned electrical system.

(b) Customer-owned equipment exemption. 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 on the primary side of the customer's transformer(s) which supplies power at the customer's utilization voltage.

(c) 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 19.28.091.

(d) Exemption from inspection.

(i) The work of a serving electrical utility and its contractors on the utility system is not subject to inspection.

The utility is responsible for inspection and approval for the installation.

(ii) Work exempted by NEC 90.2 (B)(5), 1981 edition, is not subject to inspection.

Exemptions - electrical utility telecommunications transition equipment installations, maintenance and repair.

(17) Until July 1, ((~~2004~~)) 2005, 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 shall 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 shall 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 shall 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.

(18) 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 and:

Is an independent electrical power producer and the facility generates electrical power only for sale to one or more:

✐ Electrical utilities regulated by FERC, municipal utility, or other form of governmental utility, or to an electric cooperative or mutual corporation; and

✐ 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 has entered into an agreement to sell electricity to a utility or to a third party; and

(c) 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.

(d) 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, etc.) must comply with all requirements of chapter 19.28 RCW for licensing and inspection up to and including the equipment termination point.

Exemptions - telegraph and telephone utility and telegraph and telephone utility's contractor.

(19) 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.

(20) 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; or

(iv) The manufacturer is working under the written request and supervision of an appropriately licensed electrical contractor.

(b) 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.

(21) 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.

(22) 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.

(23) Coincidental electrical/plumbing work. See RCW 19.28.091(8) for the plumber exemption.

(24) 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.

AMENDATORY SECTION (Amending WSR 03-18-089, filed 9/2/03, effective 10/3/03)

WAC 296-46B-930 Assignment--Administrator or master electrician. (1) An administrator or master electrician designated on the electrical/telecommunications contractor's license must be a member of the firm who fulfills the duties of an assigned master electrician/administrator as required in RCW 19.28.061(5), or be a full-time supervisory employee. In determining whether the individual is a member of the firm, the department will require that the individual is named as:

(a) The sole proprietor;

(b) A partner on file with the department of licensing; or

(c) A member of an LLC on file with the secretary of state.

In determining whether an individual is a full-time

supervisory employee, the department will consider whether the individual is on the electrical/telecommunications contractor's full-time payroll; receives a regular salary or wage similar to other employees; has supervisory responsibility for work performed by the electrical/telecommunications contractor, and carries out the duties shown in chapter 19.28 RCW.

(2) A firm may designate certain temporary specialty administrator(s) to satisfy the requirements of RCW 19.28.041 and 19.28.061 under the guidelines described in Table 930-1 - Temporary Specialty Administrator Application/Enforcement Procedure. See note 1 on Figure 955-1 for additional requirements regarding failure to comply with the licensing/certification requirements during the open window opportunity.

Table 930-1 - Temporary Specialty Administrator Application/Enforcement Procedure

SPECIALTIES OPEN FOR ASSIGNING TEMPORARY SPECIALTY ADMINISTRATOR	Domestic well **(03A),** HVAC/refrigeration - restricted **(06B),** Nonresidential maintenance **(07),** Nonresidential lighting maintenance **(07A),** Residential maintenance **(07B),** Restricted nonresidential maintenance **(New - 07C),** Appliance repair **(New - 07D),** Equipment repair **(New - 07E),** Door, gate and similar systems **(10).**
Last date to submit application for temporary administrator	July 31, 2004.(2), (3)
Required business status in the contracting specialty	Chapter 18.27 RCW contractor registration, chapter 19.28 RCW electrical contractor's license, or appropriate Washington business license (effective at any time between January 1, 2002 and September 1, 2002).
Minimum previous experience for firm making temporary designation	N/A
Begin interim enforcement	Effective date of this chapter.(1)
Begin full enforcement	August 1, 2004.(1)
Must pass specialty administrator examination no later than:	Twelve months after submitting temporary specialty administrator assignment, except that applicants who applied for temporary administrator status in specialties 06B, 07C, 07D, and 07E between April 22, 2003, and January 1, 2004, must pass the examination no later than December 31, 2004.(3)

Notes: (1)See Figure 955-1 for enforcement procedures. (2)To qualify for a temporary specialty administrator certificate, the following must be submitted to the department: Complete contractor's application package, complete temporary specialty administrator's application, complete Assignment of Temporary Specialty Administrator's Certificate form, and all appropriate fees. Fees will be prorated from the three-year amount required in WAC 296-46B-910. (3)A firm may only designate a single individual as a temporary administrator in a specialty. (4)An individual may not receive a temporary specialty administrator certificate if the individual has previously held any type of administrator certificate in that specialty.

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 4/22/03)

WAC 296-46B-935 Administrator certificate. General.

(1) The department will deny renewal of a certificate if an individual owes money as a result of an outstanding final judgment(s) to the department.

(2) For special accommodation see WAC 296-46B-960.

(3) An applicant will not be issued a specialty administrator certificate that is a subspecialty of a certificate the applicant currently holds (i.e., the applicant is not eligible to take the domestic well administrator examination if the applicant currently possesses a pump and irrigation administrator certificate).

Qualifying for examination.

(4) There are no qualification requirements for taking an administrator certificate examination. Applicants should contact the testing agency directly.

Original - administrator certificates.

(5) The scope of work for electrical administrators is described in WAC 296-46B-920. The department will issue an original administrator certificate to a general administrator, or specialty administrator who:

(a) Successfully completes the appropriate administrator examination; and

(b) Submits the appropriate examination passing report from the testing agency with the applicant's: Date of birth, mailing address, and Social Security number; and

(c) Pays all appropriate fees as listed in WAC 296-46B-910.

For an examination report to be considered, all the above must be submitted within ninety days after the completion of the examination. After ninety days, the applicant will be required

to successfully retake the complete examination. An individual's original administrator certificate will expire on their birth date at least one year, and not more than three years, from the date of original issue.

Combination - specialty administrator certificate.

(6) The department may issue a combination specialty administrator certificate to an individual who qualifies for more than one specialty administrators' certificate. The combination specialty administrators' certificate will plainly indicate the specialty administrator's certificate(s) the holder has qualified for. Telecommunications cannot be issued a combination because the renewal requirements are different from those required for electrical administrators. Temporary administrator certificates will not be issued as a part of a combination certificate.

Renewal - administrator certificate.

(7) An individual must apply for renewal of their administrator certificate 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, with the exception of telecommunications administrators, who will be renewed for two years.

(8) An individual may renew their administrator certificate within ninety days after the expiration date without reexamination if the individual pays the late renewal fee listed in WAC 296-46B-910.

(9) All renewals received more than ninety days after the expiration date of the certificate will be denied. The administrator will be required to pass the appropriate administrator examination before being recertified.

(10) All applicants for certificate renewal must:

(a) Submit a complete renewal application;

(b) Pay all appropriate fees as listed in WAC 296-46B-910; and

(c) Provide accurate evidence on the renewal form that the individual has completed the continuing education requirements described in WAC 296-46B-970. If an individual files inaccurate or false evidence of continuing education information when renewing a certificate, the individual's certificate may be suspended or revoked.

Telecommunications administrators are not required to provide continuing education information.

(11) An individual who has not completed the required hours of continuing education can renew an administrator's certificate if the individual applies for renewal before the certificate expires and pays the appropriate renewal fee. However, the

certificate will be placed in an inactive status.

When the certificate is placed in inactive status, an assigned administrator will be automatically unassigned from the electrical contractor. The electrical contractor will be notified of the unassignment and has ninety days to replace the administrator. An assignment fee will then be required per WAC 296-46B-910.

The inactive certificate will be returned to current status upon validation, by the department, of the required continuing education requirements.

(12) An individual may renew a suspended administrator's certificate 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.

(13) An individual may not renew a revoked administrator's certificate.

Temporary specialty administrator certificate.

(14) See WAC 296-46B-930 for additional information.

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 4/22/03)

WAC 296-46B-940 Electrician/training/temporary certificate of competency or permit required. Electrician - general.

(1) The department will deny renewal of a certificate or permit if an individual owes money as a result of an outstanding final judgment(s) to the department.

Electrician - scope of work.

(2) The scope of work for electricians and trainees is described in WAC 296-46B-920.

Electrician - certificate of competency required.

(3) To work in the electrical construction trade, an individual must possess a current valid:

(a) Master journeyman electrician certificate of competency issued by the department;

(b) Journeyman 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;

(e) Temporary electrician permit. Unless continually

supervised by an appropriately certified electrician, no temporary electrician can install, repair, replace, or maintain any electrical wiring or equipment where the system voltage is more than 600 volts, whether the system is energized or deenergized; or

(f) Electrical training certificate, learning the trade in the proper ratio, per RCW 19.28.161, under the supervision of a certified master journeyman electrician, journeyman electrician, master specialty electrician working in their specialty, or specialty electrician working in their specialty.

(4) The department issues master electrician and electrician certificates of competency in the following areas of electrical work:

(a) General journeyman **(01)**;

(b) Specialties:

(i) Residential **(02)**;

(ii) Pump and irrigation **(03)**;

(iii) Domestic well **(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)**.

Exemptions - linemen.

(5) Definition: See general definitions WAC 296-46B-020 for the definition of a lineman.

(6) Electrical linemen employed by a:

(a) Serving electrical utility or the serving utility's contractor, or a subcontractor to their subcontractor, while performing work described in WAC 296-46B-925 do not need certificates of competency.

((~~(7) Electrical linemen employed by a~~)) (b) Licensed general electrical contractors do not need certificates of competency if the electrical equipment:

((~~(a)~~)) (i) Is on commercial or industrial property;

((~~(b)~~)) (ii) Is located outside a building or structure; and

((~~(c)~~)) (iii) The work performed is on the primary side of the customer's transformer(s) supplying power at the customer's building or structure utilization voltage.

Exemptions - plumbers.

(7) Coincidental electrical/plumbing work. See RCW 19.28.091(8) for the plumber exemption.

Original - master electrician, journeyman, and specialty electrician certificates of competency.

(8) The department will issue an original certificate of competency to master, journeyman, or specialty electricians who meet the eligibility requirements listed in:

(a) RCW 19.28.191 (1)(a) or (b); 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-910;

(b) RCW 19.28.191 (1)((~~(c)~~)) (d) through ((~~(d)~~)) (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-910; or

(c) RCW 19.28.191 (1)((~~(e)~~)) (f) through ((~~(j)~~)) (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-910.

(9) 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, journeyman, and specialty electrician certificates of competency.

(10) An individual must apply for renewal of their electrician certificate of competency 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.

(11) 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-910.

(12) 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.

(13) All applicants for certificate of competency renewal must:

(a) Submit a complete renewal application;

(b) Pay all appropriate fees; and

(c) Provide accurate evidence on the renewal form that the individual has completed the continuing education requirements described in WAC 296-46B-970. If an individual files inaccurate or false evidence of continuing education information when renewing a certificate of competency, the individual's certificate of competency may be suspended or revoked.

(14) 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.

(15) 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.

(16) An individual may not renew a revoked certificate of competency.

Reciprocal agreements between Washington and other states.

(17) The department negotiates reciprocal agreements with states that have equivalent requirements for certification of master electricians, journeymen, 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.

(18) An individual coming into the state of Washington from a reciprocal state 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 master electrician category requested, journeyman, or specialty category requested;

(b) The individual makes a complete application for the reciprocity 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 valid journeyman or specialty electrician certificate or certified letter from the issuing state; and

(iii) All appropriate fees as listed in WAC 296-46B-910.

(c) The individual obtained the reciprocal state's

certificate of competency as a master electrician, journeyman, or specialty electrician by examination;

(19) An individual is not eligible for a reciprocal electrician certificate of competency if the individual:

(a) Has failed to renew a similar Washington master electrician or electrician certificate of competency as required in RCW 19.28.211;

(b) Has a similar Washington master electrician or electrician certificate of competency in suspended, revoked, or inactive status under this chapter; or

(c) Was a resident of the state of Washington at the time the examination was taken in the other state.

Military experience.

(20) 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 journeyman 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, radar, weapons, aeronautical experience, or similar experience may not be acceptable.

The military experience should be related to the building construction trade, not shipboard, aircraft, weapons, or similar installations.

Experience in another country.

(21) If an individual has a journeyman 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 journeyman electrician examination.

No more than two years of the required training to become a Washington journeyman 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 journeyman electrician or journeyman electrician.

Documentation substantiating the individual's out-of-country experience must be submitted in English.

(22) Out-of-country experience credit is not allowed toward

a specialty electrician certificate.

Training school credit.

(23) 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).

(24) See RCW 19.28.191 (1)((~~(g)~~)) (h) for training school credit allowed for journeyman applicants.

(25) See WAC 296-46B-971 for additional information on training schools.

Temporary electrician permit.

(26) Temporary permits are not allowed for master electricians.

(27) Temporary electrician permit when coming from out-of-state. An individual coming from out-of-state must either obtain a reciprocal electrician certificate, valid training certificate, or make application and receive approval for a temporary electrician permit to perform electrical work in the state, or otherwise obtain an electrician certificate of competency.

(a) Initial temporary electrician permit when coming from out-of-state.

(i) If an individual can show evidence of work experience in another state similar to RCW 19.28.191, the department may issue the individual one initial temporary journeyman or specialty electrician permit. The individual must present appropriate evidence at the time of application showing work experience equivalent to that required by RCW 19.28.191.

The initial temporary electrician permit allows the individual to work as an electrician between the date of filing a completed application for the certification examination and the notification of the results of the examination. This initial permit will be issued for one twenty-day period and will become invalid on the expiration date listed on the temporary electrician permit or the date the individual is notified they have failed the examination, whichever is earlier.

(ii) To qualify for an initial temporary electrician permit, an individual must:

(A) Meet the eligibility requirements of RCW 19.28.191; and

(B) Submit a complete application for an initial temporary electrician permit and original certification including:

✐ Date of birth, mailing address, Social Security number; and

✐ All appropriate fees as listed in WAC 296-46B-910.

(iii) The individual must not have ever possessed a

Washington master journeyman, journeyman certificate of competency, or a master specialty or specialty electrician certificate of competency in the specialty requested.

(iv) If the initial temporary electrician permit becomes invalid, it will not be extended or renewed. To continue to work in the electrical trade, the individual must apply for and receive a:

(A) Second temporary electrician permit; or

(B) Training certificate and work in the proper ratio, per RCW 19.28.161, under the direct supervision of either a certified master journeyman electrician, journeyman electrician, master specialty electrician working in the appropriate specialty, or a specialty electrician working in the appropriate specialty.

(b) Second temporary electrician permit.

(i) If the individual fails the certification examination during the initial temporary electrician period and provides verification of enrollment in an approved journeyman refresher course or approved appropriate specialty electrician refresher course, as prescribed in RCW 19.28.231, application may be made for a second temporary electrician permit.

A complete second application must include proof of enrollment in the refresher course and all appropriate fees as listed in WAC 296-46B-910.

(ii) The second temporary electrician permit will be issued for one ninety-day period and will become invalid: Upon withdrawal from the electrician refresher course, on the expiration date listed on the temporary electrician permit, or the date the individual is notified they have failed the examination, whichever is earlier;

(iii) After successfully completing the electrician refresher course, the individual must provide appropriate course completion documentation to the department and will be eligible to retake the appropriate competency exam.

(iv) If the second temporary electrician permit becomes invalid, it will not be extended or renewed. To continue to work in the electrical trade, the individual must apply for and receive a training certificate and work in the proper ratio, per RCW 19.28.161, under the direct supervision of either a certified master journeyman electrician, journeyman electrician, master specialty electrician working in the appropriate specialty, or a specialty electrician working in the appropriate specialty.

(28) Temporary specialty electrician permit gained by using previous work experience gained in the state.

(a) For the specialties listed in chapter 296-46B WAC Table 950-1, individuals credited with the minimum amount of work experience using the criteria described in WAC 296-46B-950 will be eligible for a temporary specialty electrician permit for the

purposes of working without supervision and for supervising trainees in the appropriate specialty. This temporary specialty electrician permit will be valid for a period of two years or until the individual has passed the appropriate specialty examination, whichever is first.

(b) To qualify for an initial temporary specialty electrician permit, an individual must:

(i) Document the hour requirements described in chapter 296-46B WAC Table 945-1; and

(ii) Submit a complete application including:

(A) Application for consideration of previous work experience as described in WAC 296-46B-950;

(B) Application for original electrician certificate of competency/examination including: Date of birth, mailing address, Social Security number; and

(C) All appropriate fees as listed in WAC 296-46B-910.

(c) If the individual does not successfully complete the appropriate specialty examination before the temporary specialty electrician permit expires, the individual must obtain a training certificate to continue performing electrical work. Such an individual must apply for a training certificate and work under the supervision of an appropriate electrician.

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 4/22/03)

WAC 296-46B-945 Qualifying for master, journeyman, specialty electrician examinations. Qualifying for master, journeyman, specialty electrician examinations.

(1) All applicants must be at least sixteen years of age.

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)((~~(c)~~)) (d) or ((~~(d)~~)) (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 journeyman electrician competency examination.

(4) An individual may take the journeyman 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, journeyman, 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, journeyman 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 journeyman electrician or journeyman 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 journeyman or journeyman 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 journeyman 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 journeyman 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.

Electrical construction training hours gained in specialties requiring less than two years (i.e., four thousand hours) will not be credited towards qualification for journeyman electrician.

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.

Qualifying for the journeyman/specialty electrician competency examination when work was performed in a state requiring electrician certification.

(5) An individual may take the journeyman/specialty electrician's competency examination when the appropriate state

having authority certifies to the department that:

(a) The work was legally performed under the other state's licensing and certification requirements;

(i) For journeyman applicants who meet the minimum hour requirements described in WAC 296-46B-945(4).

(ii) For specialty applicants who meet the minimum hour requirements described in WAC 296-46B-945(9).

(b) The other state's certificate of competency was obtained by examination.

Electrical construction training hours gained in specialties requiring less than two years (i.e., four thousand hours) may not be credited towards qualification for journeyman electrician.

Qualifying for the journeyman/specialty electrician competency examination when work was performed in a state that does not require electrician certification.

(6) If the other state requires electrical contractor licensing:

(a) An individual may take the journeyman/specialty electrician's competency examination when an appropriately licensed electrical contractor(s) files a notarized letter of experience with the department accompanied by payroll documentation which certifies and shows that:

(i) For journeyman applicants: The individual meets the minimum hour requirements described in WAC 296-46B-945(4).

(ii) For specialty applicants: The individual meets the minimum hour requirements described in WAC 296-46B-945(9).

(b) An individual may take the journeyman/specialty electrician's competency examination when an employer(s), acting under a property owner exemption, files a notarized letter of experience from the property owner with the department accompanied by payroll documentation which certifies and shows that:

(i) For journeyman applicants: The individual meets the minimum hour requirements described in WAC 296-46B-945(4).

(ii) For specialty applicants: The individual meets the minimum hour requirements described in WAC 296-46B-945(9).

(7) If the other state does not require electrical contractor licensing or registration: An individual may take the journeyman/specialty electrician's competency examination when the individual's employer(s) files a notarized letter(s) of experience with the department accompanied by payroll documentation which certifies and shows that:

(a) For journeyman applicants: The individual meets the minimum work requirements described in WAC 296-46B-945(4).

(b) For specialty applicants: The individual meets the minimum work requirements described in WAC 296-46B-945(9).

(8) The letter of experience described in subsections (6)

and (7) of this section should include a complete list of the individual's usual duties with percentages attributed to each.

Qualifying for a specialty electrician certificate of competency or examination.

(9) 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 journeyman electrician, journeyman 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)(9)]	Minimum Hours of Work Experience Required for Certification[(8)]
Residential certificate **(02)**	4,000[(3)]	4,000
Pump and irrigation certificate **(03)**	4,000[(3)]	4,000
Domestic well 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)**	4,000[(3)]	4,000
Appliance repair certificate **(07D)**	720[(1)(2)]	2,000[(6)]
Equipment repair certificate **(07E)**	((~~4,000[(3)]~~)) 1,000[(1)(2)]	((~~4,000~~)) 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)Two calendar years after the date of initial trainee certification, the trainee must work under seventy-five percent supervision until all required work experience hours are gained and credited towards the minimum work experience requirement even if the trainee has completed the examination.

(3)This specialty is not eligible for modified 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)((~~(f)~~)) (g)(ii).

(6)Electrical construction training hours gained in specialties requiring less than two years for certification may not be credited towards qualification for journeyman electrician.

(7)The 2,000 minimum hours of work experience required for certification as a HVAC/refrigeration-restricted **(06B)** specialty electrician may be credited as 2,000 hours towards the 4,000 minimum hours of work experience required for certification as a 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)If any legislation is enacted in ((~~2003~~)) 2004 setting the minimum hours of work experience for a specialty electrician certification to be set at one year (2,000 hours), the minimum will be set at 2,000 hours.

(9)If any legislation is enacted in ((~~2003~~)) 2004 setting the minimum hours of work experience for a specialty certification required to be eligible for examination to ninety days (720 hours), the minimum will be set at 1,000 hours.

(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.

(10) To receive credit for electrical work experience that is exempted in RCW 19.28.261, an individual must provide the department with verification from the employer or owner according to WAC 296-46B-965 (i.e., affidavit(s) of experience). For the purposes of this section, exempt work does not include work performed on property owned by the individual seeking credit.

(11) All exempt individuals learning the electrical trade must obtain an electrical training certificate from the department and renew it biannually in order to receive credit for hours worked in the trade according to WAC 296-46B-965.

(12) The department may require verification of supervision in the proper ratio from the certified supervising electrician(s).

(13) Telecommunications work experience:

(a) Credit may be verified only by employers exempted by RCW 19.28.261, general electrical **(01)** contractors, and limited energy system **(06)** electrical contractors for limited energy experience for telecommunications work done:

(i) Under the supervision of a certified journeyman or limited energy electrician; and

(ii) In compliance with RCW 19.28.191.

(b) Individuals who want to obtain credit for hours of experience toward electrician certification for work experience doing telecommunications installations must:

(i) Obtain an electrical training certificate;

(ii) Renew the training certificate biannually in order to receive credit for hours worked in the trade according to WAC 296-46B-965.

(c) Telecommunications contractors may not verify telecommunications work experience toward electrician certification.

AMENDATORY SECTION (Amending WSR 03-18-089, filed 9/2/03, effective 10/3/03)

WAC 296-46B-950 Opportunity for gaining credit for previous work experience gained in certain specialties. Some specialties have an opportunity to apply any previous work experience gained toward electrical training credit. See Table 950-1 for opportunities, deadlines and requirements.

To qualify previous work experience training credit toward eligibility for any of the specialty certificate examination(s) in this subsection, an individual must provide proof, upon application for a specialty electrician temporary permit, to the department with a notarized verification letter from the individual's employer(s) documenting:

(1) The specific specialty for which credit is being sought;

(2) The specific date time period for which credit is being sought; and

(3) The number of previous work experience hours for which credit is being sought.

The department will deny application for previous work experience credit if an individual owes money as a result of an outstanding final judgment(s) to the department.

Table 950-1 Specialty Electrician Open Window to apply previous work experience

SPECIALTIES Available for Open Window	✐ HVAC/refrigeration **(06A),** HVAC/refrigeration - restricted **(06B)**	✐ Domestic well **(03A),** ✐ Nonresidential maintenance **(07),** ✐ Nonresidential lighting maintenance and lighting retrofit **(07A),** ✐ Residential maintenance **(07B),** ✐ Door, gate and similar systems **(10)**	✐ Restricted nonresidential maintenance **(New - 07C),** ✐ Appliance repair **(New - 07D)** ✐ Equipment repair **(New - 07E)**
Previous work experience training credit will only be allowed for:	Work performed prior to September 30, 2000[(3)]	Work performed prior to June 30, 2001[(3)]	Work performed prior to the effective date of this chapter[(3)]

Last date to submit application for previous work experience	Make application on or before July 31, 2004, for a specialty electrician temporary permit as described in WAC 296-46B-940(28).
Begin interim enforcement	Effective date of this chapter[(1)]
Begin full enforcement	August 1, 2004[(1)]
Exam completion	If a temporary specialty electrician permit is awarded per WAC 296-46B-940(28), the applicant must pass the specialty electrician examination no later than two years after application, except that applicants who applied for temporary specialty electrician status in specialties 06B, 07C, 07D, and 07E between April 22, 2003, and January 1, 2004, must pass the examination no later than December 31, 2005.[(2)]

Notes:

[(1)]See Figure 955-1 for enforcement procedures. See note 1 on Figure 955-1 for additional requirements regarding failure to comply with the licensing/certification requirements during the open window opportunity.
[(2)]See WAC 296-46B-940(28) other temporary specialty electrician permit requirements.
[(3)]Work experience gained for these specialties on or after this date will be credited only if the applicant possessed a valid training certificate during the time period worked and met all requirements of chapter 19.28 RCW and this chapter.
[(4)]Previous work experience credit gained using this section will not be allowed for the same time periods for multiple specialties.
[(5)]Previous work experience gained using this section will not be applicable towards journeyman certification until the trainee successfully completes the appropriate specialty certification examination and meets all other requirements in chapter 19.28 RCW and this chapter.
[(6)]Previous work experience gained using this section will not be applicable toward journeyman certification if the specialty has a work experience requirement less than two years (four thousand hours). Hours of experience gained prior to the effective date of this rule may be applied toward journeyman certification if appropriate.
[(7)]No extension, except as permitted by rule change, of the temporary specialty electrician's status will be permitted. A temporary specialty electrician permit cannot be renewed, except as permitted by rule.
[(8)]An individual may not receive a temporary electrician permit in a specialty if the individual has previously held a specialty electrician permit in that specialty.

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 5/23/03)

WAC 296-46B-970 Continuing education. General requirements - continuing education ((~~courses~~)) classes requirements for administrator, master electrician, and electrician renewal.

((~~(1) An individual will not be given credit for the same approved continuing education course taken more than once in the three years prior to the renewal date. No credit will be granted for any course not approved per this section.~~

~~(2) Telecommunications administrators do not require continuing education.~~

~~(3) Other administrators, master electricians, and electricians.~~

~~(a) To be eligible for renewal of an administrator certificate, master electrician, or electrician certificate of competency, the individual must have completed at least eight hours of approved continuing education for each year of the~~

~~prior certification period. At least eight hours of the total required continuing education must be on the currently adopted National Electrical Code changes. Beginning January 1, 2005, four hours of the required continuing education must be on the currently adopted chapter 19.28 RCW and its related WAC(s).~~

~~(b) An individual changing an electrical administrator and an electrician certificate of competency into a master electrician's certificate of competency as allowed in RCW 19.28.191 (1)(a) or (b) must have completed at least eight hours of approved continuing education for each year of the prior electrician certification period. Eight hours of the required continuing education must be on the currently adopted National Electrical Code changes.~~

~~(c) Any portion of a year of a prior electrician certification period is equal to one year for the purposes of the required continuing education.~~

~~Approval process - continuing education course.~~

~~(4) The department must review each continuing education course. The department will recommend approval or disapproval to an electrical board subcommittee. The chief electrical inspector will be an ex officio member of this subcommittee. The subcommittee will either approve or disapprove the course.~~

~~(5) To be considered for approval, a continuing education course must consist of not less than four hours of instruction and be open to monitoring by a representative of the department and/or the electrical board at no charge. If the department determines that the continuing education course does not meet or exceed the minimum requirements for approval, the department may revoke the course approval or reduce the number of credited hours.~~

~~(6) Approved courses must be based on:~~

~~(a) Currently adopted edition of the National Electrical Code;~~

~~(b) Chapter 19.28 RCW or chapter 296-46B WAC; or~~

~~(c) Materials and methods as they pertain to electrical construction, building management systems, electrical maintenance, or workplace health and safety.~~

~~(7) Code-update courses must be based on the entire currently adopted National Electrical Code.~~

~~Application - for continuing education course approval.~~

~~(8) All applications for course approval must be on forms provided by the department. The electrical board will only consider the written information submitted with the application when considering approval of the continuing education training course.~~

~~(9) The department will provide continuing education application forms to sponsors upon request. The course sponsor~~

~~must submit an original completed application for course approval and three copies (unless submitted electronically using department prescribed technology) to the department. The department must receive the complete course application from the sponsor in writing at least forty-five days before the first class requested for approval is offered.~~

~~(10) A complete application for course approval must include:~~

~~(a) The appropriate course application fee;~~

~~(b) Course title, number of classroom instruction hours, and whether the training is open to the public;~~

~~(c) Sponsor's name, address, contact's name and phone number;~~

~~(d) Course outline (general description of the training, including specific National Electrical Code articles referenced);~~

~~(e) Lists of resources (texts, references, visual aids);~~

~~(f) Names and qualifications of instructors. Course instructors must show prior instructor qualification and experience similar to that required by the work force training and education coordinating board under chapter 28C.10 RCW;~~

~~(g) Any additional documentation to be considered; and~~

~~(h) A sample copy of the completion certificate issued to the course participants.~~

~~(11) The course sponsor seeking approval of a continuing education course will be notified of the subcommittee's decision within five days of the completed review of the application.~~

~~(12) If the application is not approved, the rejection notice will include an explanation of the reason(s) for rejection. If the course sponsor disagrees with the subcommittee's decision, the course sponsor may request a reconsideration hearing by the full electrical board. A request to appeal course rejection must be received by the department forty-five days before a regularly scheduled board meeting. The course sponsor must submit, to the department, any additional information to be considered during the hearing, in writing, at least thirty days before the board hearing. The course sponsor must provide at least twenty copies of any written information to be submitted to the board.~~

~~Offering - continuing education course.~~

~~(13) The course sponsor may offer an approved course for up to three years without additional approval. However, if the course is classified as code-update or code-related and a new edition of the National Electrical Code is adopted within the course approval period, the course approval will be considered automatically revoked and the course sponsor must submit a new application for review by the department and approval by the electrical board subcommittee.~~

~~(14) A continuing education course attended or completed by an individual before final approval by the electrical board subcommittee cannot be used to meet the administrator or electrician certificate renewal requirements.~~

~~Documentation - Washington approved training course attendance/completion.~~

~~(15) The department is not responsible for providing verification of an individual's continuing education history with the course sponsor.~~

~~(16) The course sponsor must provide the department with an accurate and typed course attendance/completion roster for each course given.~~

~~(a) The attendance/completion roster must be provided within thirty days of course completion.~~

~~(b) In addition, the course sponsor must provide the attendance/completion roster in an electronic format provided by the department.~~

~~(c) The attendance/completion roster must show each participant's name, Washington certificate number, course number, location of course, date of completion, and instructor's name. The typed roster must contain the signature of the course sponsor's authorized representative.~~

~~(17) If the course sponsor fails to submit the required attendance/completion rosters within thirty days of the course completion, the department may revoke or suspend the course approval.~~

~~(18) Course sponsors must award a certificate to each participant completing the course from which the participant will be able to obtain:~~

~~(a) Name of course sponsor;~~

~~(b) Name of course;~~

~~(c) Date of course;~~

~~(d) Course approval number;~~

~~(e) The number of continuing education units; and~~

~~(f) The type of continuing education units.~~

~~(19) The department will only use a copy of the sponsor's attendance/completion roster as final evidence that the participant completed the training course.~~

~~(20) The department will keep submitted rosters of the continuing education courses on file only for audit purposes. The department is not responsible for the original of any completion certificate issued.~~

~~Documentation - out-of-state training course attendance/completion.~~

~~(21) To apply continuing education units earned out-of-state from course sponsors who do not have state of Washington approved courses, one of the following conditions must be met:~~

~~(a) The individual must request that the course sponsor submit a complete continuing education course application and requirements as described in this section for in-state courses.~~

~~Application for course approval will not be considered more than three years after the date of the course.~~

~~(b) The department must have entered into a reciprocal agreement with the state providing course approval.~~

~~The participant must provide a copy of an accurate and completed award or certificate from the course sponsor identifying the course location, date of completion, participant's name, and Washington certificate number. The department will only accept a copy of the sponsor's certificate or form as evidence that the participant attended and completed the course.~~)) (1) DEFINITIONS - for purposes of this section.

(a) "Applicant" means the entity submitting an application for review.

(b) "Application" means a submittal made by an applicant seeking instructor or class approval.

(c) "Calendar day" means each day of the week, including weekends and holidays.

(d) "Class" means continuing education class or course.

(e) "Contractor" means the entity who has contracted with the department to review and approve/deny continuing education classes and instructors.

(f) "Date of notification" means the date of a request for additional information from the contractor or the approval/denial letter sent to the applicant by the contractor.

(g) "Individual" means an administrator or electrician seeking credit for continuing education.

(h) "Instructor" means an individual who is authorized to instruct an approved continuing education class.

(i) "Working day" means Monday through Friday, excluding state of Washington holidays.

(2) GENERAL.

(a) The department and the electrical board have the right to monitor all approved classes without notice and at no charge.

If the department or electrical board determines that the class or instructor does not meet or exceed the minimum requirements for approval or course length or instructor qualifications, the department may revoke the class or instructor approval and reduce the number of credited hours for the class.

(b) Department-offered classes and the instructors used for those classes are automatically approved and do not need to be sent to the contractor for review.

(c) Instructors who meet the minimum requirements using subsection (5)(b)(i)(D) of this section may only instruct classes sponsored by the manufacturer(s) who verified the instructors' qualifications under subsection (5)(b)(i)(D) of

this section.

(d) An individual will not be given credit for the same approved continuing education class taken more than once. No credit will be granted for any class not approved per this section.

(e) Telecommunications administrators do not require continuing educations.

(f) Other administrators, master electricians, and electricians:

(i) To be eligible for renewal of an administrator certificate, master electrician or electrician certificate of competency, the individual must have completed at least eight hours of approved continuing education for each year of the prior certification period. The individual is not required to take the classes in separate years. At least eight hours of the total required continuing education must be on the currently adopted National Electrical Code changes. Beginning January 1, 2005, four hours of the required continuing education must be on the currently adopted chapter 19.28 RCW and its related WAC(s).

(ii) An individual changing an electrical administrator and an electrician certificate of competency into a master electrician's certificate of competency as allowed in RCW 19.28.191 (1)(a) or (b) must have completed at least eight hours of approved continuing education for each year of the prior electrician certificate period. The individual is not required to take the classes in separate years. Eight hours of the required continuing education must be on the currently adopted National Electrical Code changes. Beginning January 1, 2005, four hours of the required continuing education must be on the currently adopted chapter 19.28 RCW and its related WAC(s).

(iii) Any portion of a year of a prior administrator or electrician certificate period is equal to one year for the purposes of the required continuing educations.

(iv) An individual who has both an electrician certificate and an administrator certification may use the same class to fulfill the requirements for continuing education.

(g) A continuing education class attended or completed by an individual before the class's effective date cannot be used to meet the administrator or electrician certificate renewal requirements.

(h) If neither the electrical board nor the department has a contract in effect as described in this section, the department may, at its option, elect to act as the contractor. If a contractor is not in place and the department elects not to act as the contractor, the electrical board will act as the contractor. If either the electrical board or the department acts as the contractor, the following will apply:

(i) The fee for class or instructor submittal is as set in WAC 296-46B-910(4).

(ii) The electrical board or the department will:

(A) Review the application for completeness within fifteen working days after receipt.

(B) If the application is incomplete, notify the applicant within seven working days of the status of the review and what additional information is required.

(C) Complete the review and approval/denial process within fifteen working days upon receipt of a complete application or additional requested information.

(iii) An appeal of a denial by the department will be heard by the full electrical board in accordance with WAC 296-46B-995.

(3) CLASS AND INSTRUCTOR - GENERAL APPROVAL PROCESS.

(a) The contractor will review submitted class and instructor applications to determine whether the application meets the minimum requirements for approval.

(b) The contractor will deny approval of applications that do not meet the minimum requirements.

(c) All applications will be considered to be new applications (i.e., Classes and instructors may not be renewed. All applications must include all information necessary to show conformance with the minimum requirements).

(d) Minimum requirements:

(i) Application review fees:

(A) The contractor may charge a fee for review of an application. Such fees, paid by the applicant, are nonrefundable.

(B) The fee will be as set by contractor between the department and the contractor.

(C) The fee will be set for a minimum of one year.

(D) Upon mutual agreement between the department and the contractor, the fee may be raised or lowered.

(ii) Application:

(A) The applicant must submit a complete application to the contractor at least thirty calendar days prior to offering or instructing a class.

(B) The contractor will only consider material included with the application when reviewing an application.

(C) All applications will consist of:

✐ Two copies of all material;

✐ Applicant's name, address, contact name, and telephone number;

✐ All required fees;

✐ Any other information the applicant wants to consider during the review; and

✐ In addition, class applications will include:

- Sponsor's name, address, contact name, and telephone number;

- Class title;

- Number of continuing education hours requested for the class;

- Statement of whether the class is open to the public;

- Class syllabus (e.g., general description of the training, specific NEC articles referenced, time allowed for various subject matter, etc.);

- List of resources (e.g., texts, references, etc.);

- Copies of all visual aids;

- Sample of the completion certificate.

✐ In addition, instructor application will include:

- Instructor's name, address, telephone number;

- Copies of credentials or other information showing conformance with the instructor minimum qualifications.

(e) Contractor's review process:

(i) When the application is received, the contractor must:

(A) Date stamp the application;

(B) Review the application for completeness within seven working days after receipt.

(ii) If the application is incomplete, the contractor must within two working days notify the applicant of the status of the review and what additional information is required.

(A) The applicant must provide any additional information requested by the contractor within five working days after the date of notification.

(B) The contractor will deny the application if the additional required information is not received within the five working days after the date of notification.

(iii) When the contractor has received a complete application, the contractor must review and evaluate the application for compliance with the minimum requirements.

The contractor must complete the review and approval/denial process within seven working days upon receipt of a complete application or additional requested information and within two working days notify:

✐ The applicant in writing; and

✐ The chief electrical inspector in writing and electronically. The contractor's electronic notification to the chief electrical inspector must be made in a format approved by the chief electrical inspector.

(iv) A notification of denial must include:

(A) Applicant's name and telephone number;

(B) Date of denial;

(C) Sponsor's name and class title if applicable;

(D) Instructor's name if applicable; and

(E) The reason for denial.

(v) A notification of approval:

(A) For classes must include:

✐ Applicant's name and telephone number;

✐ Sponsor's name and telephone number;

✐ Class title;

✐ Class number;

✐ Number of hours approved for the class. Note that the contractor may reduce the hours requested in the application if the review shows that the requested number of hours is excessive;

✐ Effective date for this class;

✐ Expiration date of class;

✐ Category for which the class is approved (i.e., code update, RCW/WAC update, or industry related);

✐ Sample of written class roster and attendance sheet;

✐ Type of class (i.e., classroom, correspondence, internet); and

✐ Whether the class is open to the public.

(B) For instructors must include:

✐ Applicant's name and telephone number;

✐ Instructor's name and telephone number;

✐ Effective date for the approval; and

✐ Expiration date of the approval.

(vi) Applicant's request for review of the contractor's decision:

The applicant's may request a review of the contractor's decision to deny or modify an application:

✐ All requests for review must be:

✐ Made in writing;

✐ Received by the chief electrical inspector within twenty calendar days of the contractor's denial; and

✐ Accompanied by a review fee of $109.50. The review fee is nonrefundable.

(4) CLASS APPROVAL PROCESS.

(a) Class approval will be valid for three years except:

(i) If the class is "code update" and a new NEC is adopted by the department within the class approval period, the class approval will be considered automatically revoked; or

(ii) If the class is modified after the application is approved, the class approval will be considered automatically revoked (i.e., change in syllabus, hours, examination, etc.).

(b) Minimum requirements:

(i) Class content:

(A) Industry-related classes must be based on:

✐ Codes or rules included in the NEC chapters 19.28 RCW or 296-46B WAC;

✐ Electrical theory based on currently published documents that are readily available for retail purchase; and/or

✐ Materials and methods that pertain to electrical construction, building management systems, electrical maintenance, or workplace health and safety.

(B) Code update classes must be based on the latest adopted version of the NEC and must specify the NEC articles to be addressed in the class presentation.

(C) RCW/WAC update classes must be based on the latest adopted versions of chapter 19.28 RCW and/or chapter 296-46B WAC.

(ii) Class length:

(A) The minimum allowed length of a class is two hours.

(B) The maximum allowed credit for a class is twenty-four hours.

(C) Class length must based on two-hour increments (e.g., 2, 4, 6, 8, etc.).

(D) Class length must be based on the following:

✐ Classroom instruction will be based on the total hours the individual is in the classroom.

✐ Correspondence instruction will be based on:

- A written examination (i.e., twenty-five questions will equal two hours of classroom instruction). Individuals must be responsible to determine the correct answer without the assistance of the sponsor.

✐ Internet instruction will be based on:

- A written examination (i.e., twenty-five questions will equal two hours of classroom instruction).

✐ Examinations must not direct or point the individual to a correct answer or reference. Individuals must be responsible to determine the correct answer without the assistance of the sponsor.

✐ To successfully complete a correspondence or internet class, a participant must score at least 70% on the examination required for the class.

(iii) Class material must include:

(A) Supplementary written instruction material appropriate to the type and length of the class; and

(B) If the class is code update and is provided via correspondence or internet, the sponsor must provide the individual with a nationally recognized, copyrighted publication that covers all changes to the NEC;

(iv) Class material may include:

✐ Supplementary internet material;

✐ Supplementary texts;

✐ Other material as appropriate.

(v) Certificates of completion:

(A) The sponsor must award a completion certificate to each individual successfully completing the approved class. To successfully complete a correspondence or internet class, a participant must score at least 70% on the examination required for the class.

(B) The completion certificate must include the:

✐ Name of participant;
✐ Participant's Washington certificate number;
✐ Name of sponsor;
✐ Name of class;
✐ Date of class;
✐ Name of instructor;
✐ Location of the class:
- If a classroom-type class, the city and state in which the class was given;
- If a correspondence class, state the class is a correspondence class;
- If an internet class, state the class is an internet class;
✐ Class approval number;
✐ Number of continuing units; and
✐ Type of continuing education units.
(vi) Instructors:
(A) For classroom instruction, all instructors must be approved per this section; and
(B) For correspondence and internet instruction, the applicant must show that the sponsor regularly employs at least one staff member who meets the requirements for instructors in this section.
(5) INSTRUCTOR APPROVAL PROCESS:
(a) Instructor approval will be valid for three years except:
(i) If the instructor's credentials are invalidated (e.g., suspension or revocation by the issuing entity) for any reason, approval will be automatically revoked.
(ii) When the instructor approval expires or is revoked, a new application must be submitted to regain approved instructor status.
(b) Minimum requirements:
(i) The application must show that the instructor meets one of the following:
(A) Has a valid Washington:
✐ General administrator's certificate; or
✐ General master electrician's certificate; and
✐ Has appropriate knowledge of and experience working as an electrical/electronic trainer; or
(B) Is accredited by the Washington work force training and education coordinating board. The instructor's normal duties must include providing electrical/electronic education; or
(C) Is a high school vocational teacher, community college, college, or university instructor. The instructor's normal duties must include providing electrical/electronic education; or
(D) Works for and is approved by a manufacturer of

electrical products to teach electrical continuing education; or

(E) For first-aid classes is certified by the Red Cross or other similar agency as a first-aid instructor; and

(ii) Any other information the applicant wants to be considered during the review.

(6) FORMS:

(a) The contractor will:

Develop an appropriate form(s) for the applicant's use when submitting for instructor or class approval;

(b) Applicants must use the contractor's form when submitting an application for review.

(7) PUBLICATIONS:

The contractor will provide the department with appropriate material for use by the department on the electrical program website and may post the application process, review, and approval requirements on the contractor's website.

(8) CLASS ATTENDANCE:

(a) The contractor is not responsible for monitoring any individual's attendance or class completion.

(b) The department is not responsible for providing verification of an individual's continuing education history with the class sponsor;

(c) Classes offered in Washington:

(i) The sponsor must provide the department with an accurate and typed course attendance/completion roster for each class given.

(A) The attendance/completion roster must be provided within thirty days of class completion.

(B) In addition, the course sponsor must provide the attendance/completion roster in an electronic format provided by the department.

(C) The attendance/completion roster must show each individual's name, Washington certificate number, class number, location of class, date of completion, and instructor's name. The typed roster must contain the signature of the class sponsor's authorized representative.

(ii) The sponsor must provide the individual a certificate of completion within fifteen days after successful class completion. See subsection (4) of this section.

(iii) Individuals will not be granted credit for continuing education classes unless the sponsor's attendance/completion roster shows the individual successfully completed the class.

(iv) The department will keep submitted class rosters on file for four years.

(d) Classes offered in other states:

(i) For individuals to apply continuing education units earned from out-of-state classes, one of the following conditions must be met:

(A) The individual must request that the class sponsor

submit a complete continuing education class application and gain approval for the class as described in this section for classes and instructors. Application for class or instructor approval will not be considered more than three years after the date the class was offered; or

(B) The department must have entered into a reciprocal agreement with the state providing class approval.

(ii) The individual must provide a copy of an accurate and completed award or certificate from the class sponsor identifying the class location, date of completion, individual's names, and Washington certificate number. The department will only accept a copy of the sponsor's certificate or form as evidence that the individual attended and completed the class.

(9) Contractor requirements:

(a) The contractor cannot be a sponsor or instructor.

(b) The contractor cannot be an employee of the department.

(c) The contractor must:

(i) Be an independent entity with no organizational, managerial, financial, design, or promotional affiliation with any sponsor or instructor covered under the contractor's review and approval/denial process;

(ii) Employ at least one staff member having a valid 01-General Administrator or 01-General Master Electrician Certificate. This staff member:

(A) Is responsible for reviewing and determining an application's approval or denial; and

(B) Must sign the written notification provided to applicants for all approvals and denials:

(iii) Receive, review, and process all applications as required in this section;

(iv) Allow the department access to the contractor's facilities during normal working hours to audit the contractor's ability to conform to the contract requirements;

(v) Treat all applications as proprietary information;

(vi) Respond to and attempt to resolve complaints contesting the review or approval/denial process performed by the applicant;

(vii) Notify the department within ten working days of any change in business status or ability to conform to this section;

(viii) Maintain one copy, original or electronic, of all applications and associated materials for a period of three years from the date of receipt.

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 5/23/03)

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, temporary electrician's permit, 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, temporary electrician's permit, temporary specialty electrician's permit, 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 master electrician, journeyman electrician, specialty electrician, electrical technician, temporary electrician, temporary specialty electrician, 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) A temporary electrician permit or temporary specialty electrician permit holder has violated any of the provisions of chapter 19.28 RCW or any rule adopted under chapter 19.28 RCW;

(e) The license or certificate holder incompletely or inaccurately reported continuing education units on an application for renewal; or

(f) 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) Failure 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 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; ((~~or~~))

(g) The certificate holder falsely or inaccurately reported continuing 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.

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, certificate, or temporary electrician permit 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, temporary electrician permit, or training certificate.

(5) The department may confiscate a license, certificate, or temporary electrician permit 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 03-09-111, filed 4/22/03, effective 5/23/03)

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 according to chapter 34.05 RCW the Administrative Procedure Act and chapter 10-08 WAC, Model rules of procedure. See chapter 34.05 RCW the 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 "e-mail," if the member has provided an e-mail 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, at the time of the hearing, the board shall 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 may occur by U.S. mail, facsimile or by electronic mail and shall be determined by the board at the hearing; the members' votes shall 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. The filings may be submitted by ordinary mail, certified or registered mail, or by personal delivery.

(10) All hearings before the board as a whole shall 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. All notices of appeal, with a certified check payable to the department in the sum of two hundred dollars if required, must be received in the office of the chief electrical inspector, as secretary to the board, at least thirty days before the regularly scheduled board meeting at which the hearing would occur. The appellant must submit any written argument, briefs testimony or documents for the board's consideration at least twenty days prior to the scheduled hearing.

Appeals

(11) 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 shall 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 served on the assessed party either by personal service or by certified mail, return receipt requested, sent to the last known address of the assessed party and shall 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.

(12) 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 thirty days before a regularly scheduled board meeting. The appellant must submit any written argument, briefs testimony or documents for the board's consideration at least twenty days prior to the scheduled hearing.

(13) Appeals of suspension or revocation.

(a) An appeal of the suspension or revocation of a license or certificate of competency under RCW 19.28.241 and 19.28.341 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 of a revocation or suspension of a contractor's or administrator's license, 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 by certified mail, return receipt requested, sent to the last known address of the subject and shall be filed by written notice of appeal with the chief electrical inspector, as secretary to the board.

(14) 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. The appellant must submit any written argument, briefs testimony or documents for the board's consideration at least twenty days prior to the scheduled hearing.

(15) Appeals of a continuing education class or instructor for denials or revocations.

(a) A party may appeal a decision issued by the department, pursuant to WAC 296-46B-970 (3)(e)(vi), if the department acts as the contractor pursuant to WAC 296-46B-970 (2)(h) to the board.

(b) The appeal must be filed within twenty days after the notice of the decision is served on the assessed party either by personal service or by certified mail, return receipt requested, sent to the last known address of the assessed party and shall 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 that is refundable to the appellant if the appellant's appeal is upheld by the board.

(16) 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.

((~~(16)~~)) (17) If appeal(s) according to subsections (11), (12), ((~~and~~)) (13), and (15) 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.

((~~(17)~~)) (18) Appeals - general requirements.

(a) Appeals according to subsections (11) ((~~and~~)), (12), or (15) of this section must specify the contentions of the appellant, and must for subsection (12) 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 shall not grant a hearing de novo.

(b) In appeals under subsections (12), (13) ((~~and~~)), (14), and (15) 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, the appellant has the burden of proof by a preponderance of the evidence.

Appearance and practice before board.

((~~(18)~~)) (19) 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.

((~~(19)~~)) (20) 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.

AMENDATORY SECTION (Amending WSR 03-09-111, filed 4/22/03, effective 5/23/03)

WAC 296-46B-999 Electrical testing laboratory requirements. General.

(1) This chapter describes the methods required to obtain recognition and accreditation of electrical product(s) certification and/or field evaluation laboratories by the state of Washington. This chapter provides assurance to the general consuming public that electrical products have been tested for safety and identified for their intended use.

(2) An electrical product is considered to be safe when it is either certified by a laboratory accredited by the department or labeled with a field evaluation mark by a laboratory accredited by the department.

(a) The department may declare electrical equipment unsafe if:

(i) The equipment is not being manufactured or produced in accordance with all standards of design and construction and all terms and conditions set out in the certification report for the equipment referred to in this chapter;

(ii) The equipment has been shown by field experience to be unduly hazardous to persons or property;

(iii) An examination of the equipment or of the certification report for the equipment shows that the equipment does not comply with all applicable standards; or

(iv) An examination of the certification report or the equipment shows that the equipment cannot be installed in accordance with this chapter.

(b) When the department declares an electrical product unsafe, the department will:

(i) Notify the product manufacturer and the appropriate testing laboratory in writing;

(ii) Notify the general public by:

(A) Report to the Consumer Product Safety Commission;

(B) A published article in the *Electrical Currents*;

(C) Internet website posting; and

(D) News release.

Accreditation - general.

(3) The department's chief electrical inspector's office ((~~provides forms and procedures enabling applicants to submit the data necessary for evaluation or accreditation~~)) reviews requests for accreditation or evaluation. Applicants must submit supporting data as outlined in subsections (4) through (54) of this section.

(4) The accreditation period of a NRTL will be valid for the period of the laboratory's current OSHA NRTL accreditation. The accreditation of a non-NRTL will be valid for the period of five years from the date of the department's accreditation.

(5) On-site inspection of a laboratory.

(a) On-site inspection of the laboratory may be required during the initial application process or the renewal process. Technically qualified representative(s) of the department will evaluate for compliance with accreditation criteria.

(b) On-site inspection is not required for NRTL-recognized laboratories requesting approval as certification laboratories using standards for which NRTL recognition has been approved.

(c) The department may waive on-site inspection for:

(i) Laboratories recognized or accredited by another state determined to provide an accreditation program acceptable to the department; or

(ii) NRTL-recognized laboratories requesting approval as certification laboratories for using other standards for which NRTL recognition has not been approved.

(d) The applicant must pay all costs associated with the on-site inspection.

(6) For purposes of chapter 19.28 RCW, all laboratories which certify and/or field evaluate electrical products offered for sale in the state of Washington must be accredited by the department. A NRTL requesting approval as a certification laboratory will be approved for accreditation by the department upon completion of the application process.

(7) Fees are payable as required in WAC 296-46B-911.

(8) The laboratory must apply for renewal of accreditation

at least thirty days prior to the accreditation expiration date. The department will renew accreditation for the period specified in subsection (4) of this section or notify the renewing laboratory of the department's reason(s) of refusal following receipt of the completed form and renewal fee. Accreditation may be renewed or refused for one or more electrical product category(ies).

(9) The department accepts or denies laboratory accreditation for all laboratories within the state. Accreditation is determined when a laboratory provides evidence to the department that all the requirements of this chapter are met. Accreditation is determined by the department and prior to making a determination, the department may require information and documentation to be provided by the laboratory.

(a) Accreditation is subject to review when deemed necessary by the department. The laboratory must pay all costs associated with on-site review.

(b) Every accredited laboratory must continue to satisfy all the conditions specified in this chapter during the period of the accreditation. A non-NRTL accredited laboratory must furnish the department an annual report detailing the extent of its activities for the year. The report must include, but not be limited to:

(i) The number of factory inspections;

(ii) Organizational structure;

(iii) Statement of ownership;

(iv) Laboratory equipment verification;

(v) Client accreditation programs;

(vi) Reports of litigation, which in any way were the result of or may affect any accreditation or testing of products covered by this chapter; or

(vii) Assessment of recordkeeping (i.e., certification/evaluation plans, certification/evaluation reports).

(c) The department will notify the applicant of the accreditation results. A letter of accreditation from the department is proof of the accreditation of a laboratory.

(10) The laboratory will be approved to certify only those categories identified and authorized by the department. The department will approve and list electrical product category(ies) the laboratory is qualified to certify or evaluate. The accreditation letter will indicate the electrical product category(ies) for which accreditation is issued.

(11) The department may exclude specific electrical products from acceptance. When required, the laboratory must provide evidence, acceptable to the department, that the laboratory is qualified to certify or field evaluate the specific electrical product. Laboratory recognition as an NRTL for the standard(s) used to certify or field evaluate an

electrical product will be acceptable evidence. The standards used for certification or field evaluation must be determined by the department to be acceptable and applicable to the electrical product being certified or field evaluated.

Suspension or revocation.

(12) Any laboratory failing to comply with the requirements of this chapter or submitting false information may have accreditation revoked or suspended for one or more electrical product category(ies).

(13) The department may suspend or revoke the accreditation of any laboratory found to be in noncompliance with this chapter or the laws of the state of Washington.

(14) The department will serve written notice of intent prior to suspension, revocation, or refusal to renew the accreditation of a laboratory.

(15) The laboratory must immediately notify all manufacturers whose products are covered by the accreditation that such products manufactured subsequent to the departmental revocation and offered for sale in the state of Washington can no longer bear the laboratory's label that identified it as a certified product in the state of Washington. A laboratory, whose accreditation has been suspended, may not reapply for accreditation during the period of such suspension. A laboratory, whose accreditation has been revoked, may reapply for accreditation no sooner than one year after the date of revocation of accreditation.

Business structure, practices, and personnel.

(16) The laboratory must be an independent, third-party organization with no organizational, managerial, financial, design, or promotional affiliation with manufacturers, suppliers, installers, or vendors of products covered under its certification or evaluation programs.

The laboratory must have an adequate diversity of clients or activity so that the loss or award of a specific contract regarding certification or evaluation would not be a deciding factor in the financial well-being of the laboratory.

(17) The laboratory must adequately meet the following business practices:

(a) Perform the examinations, tests, evaluations, and inspections required under the certifications programs in accordance with the designated standards and procedures;

(b) Assure that reported values accurately reflect measured and observed data;

(c) Limit work to that for which competence and capacity is available;

(d) Treat test data, records, and reports as proprietary information;

(e) Respond and attempt to resolve complaints contesting certifications and evaluation results;

(f) Maintain an independent relationship between its clients, affiliates, and other organizations so the laboratory's capacity to give certifications and evaluations objectively and without bias is not adversely affected; and

(g) Notify the department within thirty calendar days should it become unable to conform to any of the requirements of this chapter.

(18) Laboratories accredited under this chapter must notify the department within thirty calendar days of any of the following:

(a) Change in company name and/or address;

(b) Changes in major test equipment which affect the ability to perform work for which accredited;

(c) Changes in principal officers, key supervisory and responsible personnel in the company including the director of testing and engineering services, director of follow-up services, and the laboratory supervisor; or

(d) Change in independent status.

(19) The laboratory must develop and maintain a certification or evaluation program plan that includes, but is not limited to:

(a) The procedures and authority to ensure the product complies with the standard(s) established by the program;

(b) A quality control system;

(c) Adequate personnel to perform the certification or evaluation;

(d) Verification and maintenance of facilities and/or equipment; or

(e) Sample selection as applicable for product certifications, and for component testing as necessary for field evaluations.

The plan must demonstrate that the laboratory has adequate personnel, facilities, and equipment to perform all certifications and testing for which it is accredited by the state of Washington. These elements must be contained in the laboratory operations control manual.

(20) The laboratory must develop and maintain a quality control system adequate to assure the accuracy and technical integrity of its work as follows:

(a) The laboratory's quality control system must include a quality control or laboratory operations control manual;

(b) The quality control or laboratory operations control manual must be adequate to guide a testing technician or inspector in conducting the inspection, evaluation, and/or test in accordance with the test methods and procedures required for the laboratory's certification and/or evaluation program(s); and

(c) The laboratory must have a current copy of its quality

control or laboratory operations control manual available in the laboratory for use by laboratory personnel.

(21) Competent personnel who must have training, technical knowledge, and experience adequate to perform the tests, examinations, and evaluations for the certification and/or evaluation activities for which recognition is sought must staff the laboratory.

(22) The laboratory must:

(a) Provide adequate safeguards protecting the employment status of personnel from the influence or control of manufacturers, vendors, or installers of electrical products certified or tested by the laboratory;

(b) Develop and maintain a job description for each technical position category;

(c) Ensure the competency of its staff to perform assigned tasks through individual yearly observation and/or examination by a person(s) qualified by the person who has technical responsibility for the laboratory;

(d) Develop and maintain records of the results and dates of the observation or examination of personnel performance;

(e) Maintain information on the training, technical knowledge, and experience of personnel; and

(f) Develop and maintain an adequate training program assuring that new or untrained personnel will be able to perform assigned tasks properly and uniformly.

Recordkeeping and reporting - general.

(23) The laboratory must develop and maintain records and reports of those testing, inspection, certification, and evaluation activities associated with each program for which accreditation is sought. The laboratory must retain these records for a minimum of three years.

(24) The laboratory must make available to the department, upon request, all records required by the department to verify compliance with this chapter.

Recordkeeping and reporting - certification.

(25) Certification reports must contain, as applicable:

(a) Name and address of the laboratory;

(b) Pertinent data and identification of tests or inspections;

(c) Name of client;

(d) Appropriate product title;

(e) Designation of standards used to certify or test the product including edition and latest revision (e.g., UL 508, 16th Edition, Feb. 1993, Revision Oct. 9, 1997);

(f) Description and identification of the sample including, as necessary, where and how the sample was selected;

(g) Identification of the test, inspection, or procedure as

specified for certification or evaluation by the standard;

(h) Known deviations, additions to, or exclusions from evaluation and certification activities in order to be appropriate for new or innovative products not contemplated by the standard;

(i) Measurements, examinations, derived results, and identification of test anomalies;

(j) A statement as to whether or not the results comply with the requirements of the standard;

(k) Name, contact information, and signature of person(s) having responsibility for the report;

(l) Raw data, calculations, tables, graphs, sketches, and/or photographs generated during certification or evaluation must be maintained if not included in the report;

(m) Control forms documenting the receipt, handling, storage, shipping, and testing of samples;

(n) Laboratory records of its quality control checks and audits for monitoring its test work associated with its certification programs, including:

(i) Records of products assurance (follow-up) test results; and

(ii) Records of detected errors and discrepancies and actions taken subsequent to such detection.

(o) Record of written complaints and disposition thereof; and

(p) A statement that records required by these criteria will be maintained for a minimum of three years after cessation of the certification or evaluation.

Recordkeeping and reporting - field evaluation.

(26) The evaluation report must include:

(a) Name and address of the laboratory;

(b) Name of client;

(c) Address where the evaluated product is or will be installed;

(d) Designation of standards used to certify or test the product including edition and latest revision (e.g., UL 508, 16th Edition, Feb. 1993, Revision Oct. 9, 1997);

(e) Description and identification of the nonlisted and nonlabeled component(s) requiring evaluation by applicable standard(s);

(f) Description of the overall product evaluated to include full nameplate data and equipment type;

(g) A statement as to whether or not the results comply with the requirements of the standard;

(h) Pertinent test evaluation data and identification of tests or inspections including anomalies;

(i) Signature of person(s) having responsibility for the report;

(j) Any condition of acceptability or restrictions on use/relocation;

(k) Serial number(s) of the field evaluation label(s) applied must be included with the equipment identification; and

(l) The labor and industries department file identification number;

(27) Within thirty calendar days after affixing the evaluation mark, the laboratory must submit a copy of the evaluation report to:

(a) The department's chief electrical inspector submitted electronically in a format approved by the department;

(b) Local electrical inspection office submitted electronically in a format approved by the department; and

(c) Client submitted in any format acceptable to the client and testing laboratory.

Facilities and equipment.

(28) The laboratory must provide adequate evidence of the calibration, verification, and maintenance of the facilities and equipment specified for each certification or evaluation.

(29) Verification and maintenance of facilities and equipment must include as applicable, but not be limited to:

(a) Equipment description;

(b) Name of manufacturer;

(c) Model, style, serial number, or other identification;

(d) Equipment variables subject to calibration and verification;

(e) Statement of the equipment's allowable error and tolerances of readings;

(f) Calibration or verification procedure and schedule;

(g) Dates and results of last calibrations or verifications;

(h) Specified maintenance practices;

(i) Calibration and/or verification of equipment used;

(j) Name and contact information of personnel or outside contractor providing the calibration or verification service; and

(k) Traceability to National Institute of Standards and Technology or other equivalent standard reference authority.

Standards.

(30) The laboratory must have copies available, for laboratory personnel use, of applicable standards and other documents referred to or used in performing each certification or test for which approval is sought.

(31) If a laboratory desires to use a standard other than an ANSI standard, the department will evaluate the proposed standard to determine that it provides an adequate level of safety. The National Electrical Code, NFPA 70, will not be

allowed to be the primary standard used to evaluate a product.

Product certification.

(32) The electrical product certification program must contain test procedure(s), standard(s) used, certification agreement(s), method(s) of identification of products, follow-up inspection, and other laboratory procedures and authority necessary to ensure that the product complies with the standards (requirements) established by the program.

(33) All components of certified or tested products must be labeled or evaluated for compliance with all standards and conditions of use applicable to such components.

(34) The laboratory must publish an *Annual Product Directory* identifying products that are authorized to bear the laboratory's certification mark. The products directory must briefly describe the program, the products covered, the name of the manufacturer or vendor of the certified products, and the identification of the published standards or the compiled requirements on which the program is based. The product directory must be available to the public. Supplemental up-to-date information must be available to the public at the office of the laboratory during normal business hours.

Certification laboratory/manufacturer - agreement.

(35) Measures to provide for manufacturer compliance with the provisions of the product standard and laboratory control of the use of the certification mark must be embodied in an agreement between the manufacturer and the certification laboratory. The certification agreement must:

(a) Require the manufacturer to provide information and assistance as needed by the laboratory to conduct the necessary product conformity and production assurance evaluation;

(b) Allow the laboratory's representative(s) access to the manufacturer's facilities during working hours for inspection and may allow audit activities without prior notice;

(c) Restrict the manufacturer's application of certification marks to products that comply with requirements of the product standard;

(d) Secure the manufacturer's agreement to the publication of notice by the certification laboratory for any product already available in the marketplace that does not meet the safety standard;

(e) Require reevaluation of products whenever the standard covering the product is revised;

(f) Require the laboratory to notify the manufacturer's personnel responsible for and authorized to institute product recall in the case of a hazard;

(g) Provide for control of certification marks by the laboratory;

(h) Require that the laboratory provide the manufacturer with a report of original product evaluation. The report must document conformity with applicable product standards by test results and other data; and

(i) Require the identification of the manufacturer(s) of the product and the location(s) where the product is produced.

Certification mark.

(36) The laboratory owns the certification mark.

(37) The certification mark must be registered as a certification mark with the United States Patent and Trademark Office.

(38) The certification mark must:

(a) Not be readily transferable from one product to another; (b) Be directly applied to each unit of production in the form of labels or markings suitable for the environment and use of the product. When the physical size of the unit does not permit individual marking, markings may be attached to the smallest package in which the unit is marketed;

(c) Include the name or other appropriate identification of the certification laboratory;

(d) Include the product category; and

(e) The laboratory must have a system of controls and records for all marks. The records must include marks removed or otherwise voided. See WAC 296-46B-999(25).

(39) The certification mark may be applied to the product prior to authorizing the use of a certification mark on a product. The laboratory must:

(a) Determine by examination and/or tests that representative samples of the product comply with the requirements (standards). Components of certified products must comply with the applicable safety requirements (standards) or be listed. Evaluation of the product design must be made on representative production samples or on prototype product samples with subsequent verification that factory productions are the same as the prototype;

(b) Determine that the manufacturer has the necessary facilities, test equipment, and control procedures to ensure that continuing production of the product complies with the requirements; and

(c) If the certification mark is not applied at the manufacturing facility, the laboratory must provide prior notification to the department of its intent to affix the certification mark in the field.

Certification laboratory product - assurance/follow up.

(40) To verify continued product acceptability, the laboratory must develop and maintain a factory follow-up inspection program and manual to determine continued compliance

of certified products with the applicable standard.

(41) The follow-up inspection file must include the:

(a) Conditions governing the use of the certification mark on products;

(b) Identification of the products authorized for certification;

(c) Identification of manufacturer and plant location at which manufacture and certification are authorized;

(d) Description, specifications, and requirements applicable to the product;

(e) Description of processes needed for control purposes;

(f) Description of the manufacturer's quality assurance program when used as part of the follow-up program;

(g) Description of inspections and tests to be conducted by the manufacturer and the laboratory; and

(h) Description of follow-up tests to be conducted in the laboratory.

(42) Follow-up procedures and activities must include:

(a) Periodic inspections at the factory with testing at the factory or certification laboratory of representative samples selected from production and, if appropriate, from the market;

(b) Periodic auditing or surveillance of the manufacturer's quality assurance program through the witnessing of manufacturer's tests, review of the manufacturer's records, and verification of the manufacturer's produced data;

(c) Investigation of alleged field failures upon department request; and

(d) Procedures for control of the use of the certification mark by:

(i) Keeping records of the release and use of certification marks;

(ii) Removal of marks from noncomplying products;

(iii) Return or destruction of unused marks when the authority to use the marks is terminated; and

(iv) Legal action.

(43) The frequency of laboratory follow-up inspections must not be less than four times per year during production, unless adequate data is provided to the department to justify less frequent inspections. If there is no production during the year, at least one follow-up inspection is to be completed. The frequency of follow-up inspections must be sufficient to provide a reasonable check on the method(s) the manufacturer exercises to assure that the product bearing the certification mark complies with the applicable standards.

Field evaluation - requirements.

(44) The field evaluation laboratory may perform evaluations on any products or product categories previously approved by the department. NRTL recognition may be accepted by

the department as a basis for approval to perform field evaluations. Since OSHA does not review or recognize laboratories for field evaluation purposes, laboratories seeking accreditation from the department for field evaluation may be required to provide additional justification of capability such as, but not limited to: Recordkeeping, employee standards and proficiency, equipment requirements, and other requirements described in this chapter.

(45) The laboratory must request permission from the department in writing two working days prior to conducting any field evaluation of an electrical product to be installed in any jurisdiction in the state. Requests must be made using a department-supplied form.

(46) The field evaluation process must be completed within six months following department approval. If the field evaluation is not completed within six months following department approval, the laboratory must request permission from the department in writing to continue the evaluation process. If this secondary permission is granted to the laboratory, the department may require the equipment to be placed out-of-service except as necessary to complete the field evaluation process.

(47) The scope of a field evaluation will depend on the status of the item to be evaluated as follows:

(a) A new piece of equipment must have a complete evaluation of all components and the assembly as provided by the manufacturer. For example: An industrial machine with a control panel, remote motors, sensors, controls, and other utilization equipment; and

(b) A product that has been modified internally or by an addition need have only those portions evaluated that were affected by the modification. For example: A switchboard with multiple sections that has a section added would only need the new section, the one section immediately adjacent, and any control modifications evaluated.

(48) Each unit that receives a field evaluation mark applied by the field evaluation laboratory must have sufficient inspections and/or testing completed to ensure it is in essential conformance with the applicable product standard(s).

(49) The laboratory may perform the preliminary evaluation in the manufacturer's facility. Final evaluation and acceptance of the product must be made on-site at the location of final installation, unless waived by the department.

Field evaluation mark.

(50) Only laboratory personnel may apply the field evaluation mark after final acceptance of the product. The field evaluation label must be applied on-site at the location of the final installation, unless waived by the department.

(51) The field evaluation laboratory must have a system of

controls and records for all field evaluation marks it applies. The records must include labels removed or otherwise voided.

(52) A field evaluated product may be relocated or fed from a different power source if not prohibited by the field evaluation mark or the field evaluation report.

(53) The field evaluation mark must:

(a) Not be readily transferable from one product to another;

(b) Be directly applied by the laboratory personnel to each unit of production in the form of labels or markings suitable for the environment and use of the product;

(c) Include the name or other appropriate identification of the certification laboratory; and

(d) Include a unique evaluation laboratory reference number.

(54) The field evaluation laboratory must have a system of controls and records for all field evaluation marks it applies. The records must include labels removed or otherwise voided. See subsection (26) of this section.