

AMENDATORY SECTION (Amending WSR 05-10-024, filed 4/26/05, effective 6/30/05)

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

(1) The 2005 edition of the National Electrical Code (NFPA 70 - 2005) including Annex A, B, and C; the 2003 edition of standard for the Installation of Stationary Pumps for Fire Protection (NFPA 20 - 2003); the 2002 edition of standard for 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-7 December 2001 including Annex 1 through 4); Commercial Building Grounding and Bonding Requirements for Telecommunications (ANSI/TIA/EIA 607 - A - 2002); Residential Telecommunications Cable Standard (ANSI/TIA/EIA 570-A-December 2001); American Railroad Engineering and Maintenance of Way Association - 2005 Communications and Signal Manual; 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-B, 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 standard for Installation of Stationary Pumps for Fire Protection (NFPA 20), standard for Emergency and Standby Power Systems (NFPA 110), ANSI/TIA/EIA 568-B, 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 allow 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) All required equipment grounding conductors installed in concealed cable or flexible conduit systems must be completely installed and made up at the time of the rough-in cover inspection.

(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 for a time period of twenty-four or more hours. Such occupancies include, but are not restricted to: Penal institutions, reformatories, jails, detention centers, correctional centers, and residential-restrained care.

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

(i) "Hospital" means any institution, place, building, or agency providing accommodations, facilities and services over a continuous period of twenty-four hours or more, for observation, diagnosis, or care of two or more individuals not related to the operator who are suffering from illness, injury, deformity, 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 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) Electrical plan review.

(a) Electrical plan review is not required for:

(i) Lighting specific projects that result in an electrical load reduction on each feeder involved in the project;

(ii) Low voltage systems;

(iii) ~~((Projects where the:~~

~~Service and feeder load calculation is affected by five percent or less;~~

~~Work does not involve critical branch circuits or feeders as defined in NEC 517.2; and~~

~~Affected service or feeder does not exceed 250 volts, 400 amperes;))~~ Modifications to existing electrical installations where all of the following conditions are met:

~~✎~~ Service or distribution equipment involved is rated not more than 400 amperes and does not exceed 250 volts;

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

~~✎~~ Does not involve branch circuits or feeders of an essential electrical system as defined in NEC 517.2; and

~~✎~~ Service and feeder load calculations are increased by 5% or less.

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

~~✎~~ Emergency systems other than listed unit equipment per NEC 700.12(~~(E))~~ (F);

~~✎~~ Critical branch circuits or feeders as defined in NEC 517.2; or

~~✎~~ A required fire pump system.

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

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

(d) Electrical plans.

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

(ii) The submitted plan will receive a preliminary review within seven business days after receipt by the department.

(iii) If the submitted plan:

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

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

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

(v) The approved plan must be available on the job site, for use by the electrical inspector, prior to the final electrical inspection.

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

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

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

(g) Plans for projects 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, unless the agency regulating the installation specifically requires review by the department.

(h) 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. Fees will be calculated based on the date the plans are received by the department.

(i) The department may perform the plan review for new or altered electrical installations of other types of construction when the owner or electrical contractor makes a voluntary request for review.

(j) 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:

(i) The date of the measurements.

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

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

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

Wiring methods for designated building occupancies.

(17) 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.

(18) 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~~) in places of assembly located within educational or institutional facilities, wiring methods must conform to NEC

518.4(a). Places of assembly located within educational or institutional facilities may not be wired according to NEC 518.4(b) or (c).

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 05-10-024, filed 4/26/05, effective 6/30/05)

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) **"Appliance"** means household appliance.

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

~~((+8))~~ (9) **"AWG"** means American Wire Gauge.

~~((+9))~~ (10) **"Basement"** means that portion of a building that is partly or completely below grade plane. A basement shall be considered as a story above grade plane and not a basement where the finished surface of the floor above the basement is:

(a) More than 1829 mm (six feet) above grade plane;

(b) More than 1829 mm (six feet) above the finished ground level for more than 50% of the total building perimeter; or

(c) More than 3658 mm (twelve feet) above the finished ground level at any point.

Also see "mezzanine" and "story."

~~((+10))~~ (11) **"Board"** means the electrical board established and authorized under chapter 19.28 RCW.

~~((+11))~~ (12) **"Chapter"** means chapter 296-46B WAC unless expressly used for separate reference.

~~((+12))~~ (13) **"Category list"** is a list of nonspecific

product types determined by the department.

~~((13))~~ (14) 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.

~~((14))~~ (15) 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.

~~((15))~~ (16) **"Certificate of competency"** includes the certificates of competency for master journeyman electrician, master specialty electrician, journeyman, and specialty electrician.

~~((16))~~ (17) 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.

~~((17))~~ (18) A **"complete application"** includes the submission of all appropriate fees, documentation, and forms.

~~((18))~~ (19) **"Construction,"** for the purposes of chapter 19.28 RCW, means electrical construction.

~~((19))~~ (20) **"Coordination (selective)"** as defined in NEC 100 shall be determined and documented by a professional engineer registered under chapter 18.43 RCW.

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

~~((20))~~ (22) **"Director"** means the director of the department, or the director's designee.

~~((21))~~ (23) **"Electrical equipment"** includes electrical conductors, conduit, raceway, apparatus, materials, components, and other electrical equipment not exempted by RCW 19.28.006(9). Any conduit/raceway of a type listed for electrical use is considered to be electrical equipment even if no wiring is installed in the conduit/raceway at the time of the conduit/raceway installation.

~~((22))~~ (24) An **"electrical products certification laboratory"** is a laboratory or firm accredited by the state of Washington to perform certification of electrical products.

~~((23))~~ (25) 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.

~~((24))~~ (26) **"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.

~~((25))~~ (27) **"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.

~~((26))~~ (28) 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.

~~((27))~~ (29) The **"filing"** is the date the document is actually received in the office of the chief electrical inspector.

~~((28))~~ (30) **"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.

~~((29))~~ (31) **"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).

~~((30))~~ (32) **"Household appliance"** means utilization equipment installed in a dwelling unit that is built in standardized sizes or types and is installed or connected as a unit to perform one or more functions such as cooking and other equipment installed in a kitchen, clothes drying, clothes washing, portable room air conditioning units and portable heaters, etc. Fixed electric space-heating equipment covered in NEC 424 (furnaces, baseboard and wall heaters, electric heat cable, etc.) and fixed air-conditioning/heat pump equipment (NEC 440) are not household appliances. Household appliance does not mean any utilization equipment that:

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

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

(33) **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).

~~((+31+))~~ (34) **"IBC"** means the International Building Code. Copies of the IBC are available from the International Code Council.

~~((+32+))~~ (35) An **"individual"** or **"party"** or **"person"** means an individual, firm, partnership, corporation, association, government subdivision or unit thereof, or other entity.

~~((+33+))~~ (36) 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.

~~((+34+))~~ (37) 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.

~~((+35+))~~ (38) **"License"** means a license required under chapter 19.28 RCW.

~~((+36+))~~ (39) **"Labeled"** means an electrical product that bears a certification mark issued by a laboratory accredited by the state of Washington.

~~((37))~~ (40) A **"laboratory"** may be either an electrical product(s) certification laboratory or an electrical product(s) evaluation laboratory.

~~((38))~~ (41) A **"laboratory operations control manual"** is a document to establish laboratory operation procedures and may include a laboratory quality control manual.

~~((39))~~ (42) **"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.

~~((40))~~ (43) **"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.

~~((41))~~ (44) **"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.

~~((42))~~ (45) **"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.

~~((43))~~ (46) **"Mezzanine"** is the intermediate level or levels between the floor and ceiling of any story with an aggregate floor area of not more than one-third of the area of the room or space in which the level or levels are located. Also see "basement" and "story."

~~((44))~~ (47) **"NEC"** means National Electrical Code. Copies of the NEC are available from the National Fire Protection Association.

~~((45))~~ (48) **"NEMA"** means National Electrical Manufacturer's Association. Copies of NEMA standards are available from the National Electrical Manufacturer's Association.

~~((46))~~ (49) **"NEC"** means National Electrical Safety Code.

Copies of the NESC are available from the Institute of Electrical and Electronics Engineers, Inc.

~~((47))~~ (50) "**NETA**" means International Electrical Testing Association, Inc. Copies of the NETA standards and information are available from the International Electrical Testing Association, Inc.

~~((48))~~ (51) "**NFPA**" means the National Fire Protection Association. Copies of NFPA documents are available from the National Fire Protection Association.

~~((49))~~ (52) "**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.

~~((50))~~ (53) "**Point of contact**" for utility work, means the point at which a customer's electrical system connects to the serving utility system.

~~((51))~~ (54) "**Proceeding**" means any matter regarding an appeal before the board including hearings before an administrative law judge.

~~((52))~~ (55) "**Public area or square**" is an area where the public has general, clear, and unrestricted access.

~~((53))~~ (56) 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.

~~((54))~~ (57) "**RCW**" means the Revised Code of Washington. Copies of electrical RCWs are available from the department and the office of the code reviser.

~~((55))~~ (58) 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.

~~((56))~~ (59) "**Service**" or "**served**" means that as defined in RCW 34.05.010(19) when used in relation to department actions or proceedings.

~~((57))~~ (60) "**Story**" is that portion of a building included between the upper surface of a floor and the upper surface of the floor or roof next above. Next above means vertically and not necessarily directly above. Also see "basement" and "mezzanine."

~~((58))~~ (61) "**Structure,**" for the purposes of this chapter and in addition to the definition in the NEC, means something constructed either in the field or factory that is used or intended for supporting or sheltering any use or occupancy as

defined by the IBC.

~~((59))~~ (62) 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.

~~((60))~~ (63) **"Telecommunications network demarcation point"** is as defined in RCW 19.28.400 for both regulated carriers and unregulated local service providers.

~~((61))~~ (64) **"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.

~~((62))~~ (65) 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.

~~((63))~~ (66) **"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.

~~((64))~~ (67) **"UL"** means Underwriters Laboratory.

~~((65))~~ (68) **"Utility"** means an electrical utility.

~~((66))~~ (69) **"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.

~~((67))~~ (70) **"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.

~~((68))~~ (71) **"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.

~~((69))~~ (72) **"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 05-22-025, filed 10/25/05, effective 11/25/05)

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

(c) **"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.

~~((e))~~ (d) 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))~~ (e) **"Industrial plants"** include buildings or facilities used in a manufacturing process or a manufacturing training facility (e.g., educational shop area in an educational or institutional facility), but do not include:

(i) Municipal or other government facilities;

(ii) Other educational facilities or portions thereof;

(iii) Other 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))~~ (f) **"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))~~ (g) **"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))~~ (h) **"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))~~ (i) 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) Until December 31, 2006, by department evaluation showing compliance with appropriate standards. Appropriate standards are NEMA, ANSI, NFPA 79, UL 508A ~~((e))~~, International Electrotechnical Commission 60204, or their equivalent. Industrial utilization equipment is required to conform to a nationally or internationally recognized standard applicable for the particular industrial utilization equipment. Compliance must be shown as follows:

(i) The equipment's manufacturer must document, by letter to the equipment owner, the equipment's conformity to an appropriate standard(s). 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;

(F) The standard(s) used to manufacture the equipment. Except for the reference of construction requirements to ensure the product can be installed in accordance with the National Electrical Code, the National Electrical Code is not considered a standard for the purposes of this section;

(G) 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 5,000 AIC; and

(H) The date the equipment was manufactured. 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.

(iii) The chief electrical inspector will evaluate the equipment manufacturer's letter, equipment owner's letter, and the individual equipment.

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.

(d) An engineering evaluation where an engineer, accredited by the department, shows the equipment to be in compliance with appropriate standards. See WAC 296-46B-997 for the requirements to become an accredited engineer. Appropriate standards are NEMA, ANSI, NFPA 79, UL 508A, International Electrotechnical Commission 60204, or their equivalent. Industrial utilization equipment is required to conform to a nationally or internationally recognized standard applicable for the particular industrial utilization equipment. At a minimum, compliance must be shown as follows:

(i) The engineer must document, by letter to the chief electrical inspector, the equipment's conformity to an appropriate standard(s) and the fault current interrupting rating of the equipment. The National Electrical Code is not considered a standard for the purposes of this section.

(ii) The engineer must affix a permanent label to the equipment showing:

(A) Engineer's name;

(B) Date of approval;

(C) Equipment serial number; and

(D) The following statement: "This equipment meets appropriate standards for industrial utilization equipment."

(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-040 Traffic management systems. (1) The department will perform the electrical inspection and acceptance of traffic management systems within its jurisdiction. A traffic management system includes:

(a) Traffic illumination systems;

(b) Traffic signal systems;

(c) Traffic monitoring systems; (~~and~~)

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

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

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

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

(a) WSDOT/APWA Standard Specifications and Plans;

(b) WSDOT Design Manual;

(c) International Municipal Signal Association (IMSA);

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

(e) Federal Standards 170/Controller Cabinets;

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

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

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

(3) Associated induction detection loop or similar circuits will be accepted by the department without inspection.

(4) For the licensing requirements of chapter 19.28 RCW, jurisdictions will be considered owners of traffic management systems when doing electrical work for other jurisdiction(s) under a valid interlocal agreement, as permitted by chapter 39.34 RCW. Interlocal agreements for traffic management systems must be filed with the department prior to work being performed for this provision to apply.

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

(6) Underground installations.

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

(b) The department will conduct inspections in open trenching within its jurisdiction. The electrical work permit purchaser must coordinate the electrical inspection. A written request (e.g., letter, e-mail, fax, etc.) for inspection, made

to the department office having the responsibility to perform the inspection, must be made a minimum of two working days prior to the day inspection is needed (e.g., two working days - 10:00 a.m. Tuesday request for a 10:00 a.m. Thursday inspection, excluding holidays and weekends).

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

- (i) Date and time of inspection;
- (ii) Location;
- (iii) Installing firm;
- (iv) Owner;
- (v) Type of conduit;
- (vi) Size of conduit;
- (vii) Depth of conduit; and
- (viii) Project inspector/designee name and contact information.

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

(a) An electrical service cabinet must contain only listed components. The electrical service cabinet enclosure is not required to be listed but will conform to the standards in subsection (2) of this section.

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

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

AMENDATORY SECTION (Amending WSR 05-22-025, filed 10/25/05, effective 11/25/05)

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.

Class B basic electrical inspection.

(6) Only licensed electrical/telecommunication 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/telecommunications worker

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/telecommunication contractor's name;
- (iii) Electrical/telecommunication contractor's license number;
- (iv) Installing electrician's certificate number, except for telecommunication work; 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/telecommunication contractor's license number;
- (iii) Installing electrician's certificate number, except for telecommunication work;
- (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/telecommunication 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~~) label in the block must be inspected.

(b) If any such subsequent installation fails inspection, (~~all installations~~) another label in the block must be inspected until a label is approved without a correction(s).

(c) A fee is required for any inspection required when a correction(s) is issued as a result of the inspection of any Class B label or if an inspection is required because of (a) or (b) of this subsection. See WAC 296-46B-905(15) for fees.

(9) Any electrical/telecommunication 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 means work other than Class A basic electrical work. See WAC 296-46B-900(8) for Class A definition. ~~((A cover inspection is required for all fire-wall penetrations.))~~

(a) Class B basic electrical work includes the following:

(i) Extension of not more than one branch electrical circuit limited to one hundred twenty volts and twenty amps each where:

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

(B) The extension does not supply more than two devices or outlets as defined by the NEC. A device allowed in an extended circuit includes: General use snap switches/receptacles, luminaires, thermostats, speakers, etc., but does not include wiring/cabling systems, isolating switches, magnetic contactors, motor controllers, etc.

(ii) Like-in-kind replacement of:

(A) A single luminaire not exceeding two hundred seventy-seven volts and twenty amps; or

(B) A motor larger than ten horsepower; or

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

(D) An electric/gas/oil furnace not exceeding 240 volts and 100 amps when the furnace is connected to an existing branch circuit. For the purposes of this section, a boiler is not a furnace; or

(E) An individually controlled electric room heater (e.g., baseboard, wall, fan forced air, etc.), air conditioning unit or refrigeration unit not exceeding 240 volts, 30 minimum circuit amps when the unit is connected to an existing branch circuit; or

(F) Circuit modification required to install not more than five residential load control devices in a residence where installed as part of an energy conservation program sponsored by an electrical utility and where the circuit does not exceed 240 volts and 30 amps.

(iii) The following low voltage systems:

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

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

(C) The installation of device(s) or wiring for Class 2 or

3 thermostat, audio, security, burglar alarm, intercom, amplified sound, public address, or access control systems. This does not include fire alarm, nurse call, lighting control, industrial automation/control or energy management systems; or

(D) Telecommunications cabling and equipment requiring inspection in RCW 19.28.470;

(iv) The replacement of not more than ten standard receptacles with GFCI receptacles;

(v) The conversion of not more than ten snap switches to dimmers for the use of controlling a luminaire(s) conversion.

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

(i) Areas classified as Class ((1)) (I), Class ((2)) (II), Class ((3)) (III), or Zone locations per NEC 500; or

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

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

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

AMENDATORY SECTION (Amending WSR 05-10-024, filed 4/26/05, effective 6/30/05)

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

(1) GFCI requirements.

~~((a))~~ All 125-volt, 15- and 20-ampere receptacles installed in wet locations must have Class A ground-fault circuit interrupter protections for personnel.

~~((b) 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).

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 per NEC 210.12.

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.

(4) Receptacle outlets installed in appliance garages 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 configurations that are a permanent part of the dwelling configuration or finish:

(a) Window seating; and

(b) Bookcases or cabinets that extend from the floor to a level at least 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.

052(C) Countertops.

(6) A receptacle(s) is not required to be installed in the area directly behind a sink or range as shown in NEC 210.52, Figure 210.52. Outlets must be installed within 24" on either side of a sink or range as shown in Figure 210.52.

(7) If it is impracticable to install the outlet(s) required in NEC 21.52(C)(3), a receptacle is not required on any peninsular counter surface as required by NEC 210.52(C)(3) so long as the peninsular counter area extends no farther than 6' from the face of the adjoining countertop. Any outlet(s) eliminated using this subsection must be installed in the wall space at the point where the peninsula connects to the wall countertop in addition to the outlets required by NEC 210.52(C)(1).

AMENDATORY SECTION (Amending WSR 05-10-024, filed 4/26/05, effective 6/30/05)

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

032 Two or more buildings or structures.

(1) 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) 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) 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) 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) 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) Multiple grounding. NEC 250.184 (c)(1) 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) Multigrounded neutral conductor. NEC 250.184 (C)(2) through (5) 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-501 Special occupancies NEC Class ((1)) I locations.

001 Sewage disposal systems.

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

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

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

(c) Float switches installed in a pumping chamber must be

hermetically sealed to prevent the entrance of gases or vapors;

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

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

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

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

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

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

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

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

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

(3) Any residential or nonresidential system that has building or structure floor drains being discharged into the system is classified as Class I Division ((±)) 1. Drains from any commercially made tub, shower, basin, sink, or toilet are not considered floor drains.

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

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

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

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

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

WAC 296-46B-555 Special occupancies--Marinas and boatyards. (1) For the purposes of NEC 555.1, the scope of work includes private, noncommercial docking facilities.

(2) For the purposes of NEC 555.5, transformer(~~s~~) terminations must be located a minimum of twelve inches above the deck of a dock (datum plane requirements do not apply for this section).

(3) For the purposes of NEC 555.7, adjacent means within sight.

(4) For the purposes of NEC 555.9, all electrical connections must be installed a minimum of twelve inches above the deck of a pier unless the connections are approved for wet locations (datum plane requirements do not apply for this section).

(5) For the purposes of NEC 555.10, all enclosures must be corrosion resistant. All gasketed enclosures must be arranged with a weep hole to discharge condensation.

(6) For the purposes of NEC 555.11, gasketed enclosures are only required for wet locations.

(7) For the purposes of NEC 555.13, the following wiring methods are allowed:

(a) All wiring installed in a damp or wet location must be suitable for wet locations.

(b) Extra-hard usage portable power cables rated not less than 75°C, 600 volts, listed for wet locations and sunlight resistance and having an outer jacket rated for the environment are permitted. Portable power cables are permitted as a permanent wiring method under or within docks and piers or where provided with physical protection. The requirements of NEC 555.13 (B)(4)(b) do not apply.

(c) Overhead wiring must be installed at the perimeter of areas where boats are moored, stored, moved, or serviced to avoid possible contact with masts and other parts of boats.

(d) For the purposes of NEC 555.13 (B)(5), the wiring methods of Chapter 3 NEC will be permitted.

(8) For the purposes of NEC 555.19, receptacles must be

mounted not less than twelve inches above the deck surface of the pier or dock (datum plane requirements do not apply for this section). Shore power receptacles that provide shore power for boats must be rated not less than 20 amperes and must be single outlet type and must be of the locking and grounding type or pin and sleeve type.

(9) For the purposes of NEC 555.21, electrical wiring and equipment located at or serving dispensing stations must comply with Article 514 NEC in addition to the requirements of this section.

(a) Boundary classifications.

(i) Class I, Division 1. The area under the dispensing unit is a Class I, Division 1 location. If a dock has one or more voids, pits, vaults, boxes, depressions, or similar spaces where flammable liquid or vapor can accumulate below the dock surface and within twenty feet horizontally of the dispensing unit, then the area below the top of the dock and within twenty feet horizontally of the dispensing unit is a Class I, Division 1 location. See Figure 555-1.

(ii) Class I, Division 2. The area eighteen inches above the water line and within twenty feet horizontally of the dispensing unit is a Class I, Division 2 location. If a dock has one or more voids, pits, vaults, boxes, depressions, or similar spaces where flammable liquid or vapor can accumulate below the dock surface and within twenty feet horizontally of the dispensing unit, then the area to eighteen inches above the top and adjacent to the sides of the dock and within twenty feet horizontally of the dispensing unit is a Class I, Division 2 location. See Figure 555-2.

(b) Portable power cable will be allowed as a permanent wiring method in Class I, Division 2 locations when protected from physical damage.

(10) For the purposes of NEC 555.23, the datum plane requirements do not apply.



AMENDATORY SECTION (Amending WSR 05-22-025, filed 10/25/05, effective 11/25/05)

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.	\$73.00
Each additional 500 sq. ft. or portion of	\$23.40
(ii) Each outbuilding or detached garage - inspected at the same time as a dwelling unit on the property	\$30.50
(iii) Each outbuilding or detached garage - inspected separately	\$48.10
(iv) Each swimming pool - inspected with the service	\$48.10
(v) Each swimming pool - inspected separately	\$73.00
(vi) Each hot tub, spa, or sauna - inspected with the service	\$30.50
(vii) Each hot tub, spa, or sauna - inspected separately	\$48.10
(viii) Each septic pumping system - inspected with the service	\$30.50
(ix) Each septic pumping system - inspected separately	\$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	\$78.70	\$23.40
201 to 400	\$97.80	\$ 48.10

401 to 600	\$134.30	\$66.90
601 to 800	\$172.30	\$91.80
801 and over	\$245.70	\$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	\$66.90
201 to 600	\$97.80
601 and over	\$147.40

(ii) Maintenance or repair of a meter or mast (no alterations to the service or feeder) \$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) \$48.10

(ii) Each additional circuit (see note above) \$5.30

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

(i) Mobile home or modular home service or feeder only \$48.10

(ii) Mobile home service and feeder \$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 \$48.10

(ii) Each additional site service; or additional site feeder inspected at the same time as the first service or feeder \$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)(i)(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	\$78.70	\$48.10

101 to 200	\$95.80	\$61.30
201 to 400	\$184.30	\$73.00
401 to 600	\$214.80	\$85.80
601 to 800	\$277.70	\$116.90
801 to 1000	\$339.00	\$141.40
1001 and over	\$369.80	\$197.30

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

(i) Service/feeders

Ampacity	Service or Feeder
0 to 200	\$78.70
201 to 600	\$184.30
601 to 1000	\$277.70
1001 and over	\$308.40

(ii) Maintenance or repair of a meter or mast (no alterations to the service or feeder) \$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)(i)(table) above.

- (i) First 5 circuits per branch circuit panel \$61.30
- (ii) Each additional circuit per branch circuit panel \$5.30
- (d) **Over 600 volts surcharge per permit.** \$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	\$42.20	\$21.60
61 to 100	\$48.10	\$23.40
101 to 200	\$61.30	\$30.50
201 to 400	\$73.00	\$36.40
401 to 600	\$97.80	\$48.10

601 and over	\$110.90	\$55.30
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(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	\$5.30
(b) Towers - when not inspected at the same time as a service and feeders - 1 to 6 towers	\$73.00
(c) Each additional tower	\$5.30

(5) Miscellaneous - commercial/industrial and residential.

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

(i) First thermostat	\$36.40
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(ii) Each additional thermostat inspected at the same time as the first	\$11.40
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(b) **Class 2 or 3 low-voltage systems and telecommunications systems.** Includes all telecommunications installations, fire alarm, nurse call, energy management control systems, industrial and automation control systems, lighting control systems, and similar Class 2 or 3 low-energy circuits and equipment not included in WAC 296-46B-110 for Class B work.

(i) First 2500 sq. ft. or less	\$42.20
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(ii) Each additional 2500 sq. ft. or portion thereof	\$11.40
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(c) Signs and outline lighting.

(i) First sign (no service included)	\$36.40
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(ii) Each additional sign inspected at the same time on the same building or structure	\$17.30
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(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	\$48.10
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(ii) Each additional berth inspected at the same time	\$30.50
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(e) Yard pole, pedestal, or other meter loops only.

(i) Yard pole, pedestal, or other meter loops only	\$48.10
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(ii) Meters installed remote from the service equipment and inspected at the same time as a service, temporary service or other installations	\$11.40
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(f) Emergency inspections requested outside of normal working hours.

Regular fee plus surcharge of:	\$91.80
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(g) Generators.

Note:

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

Portable generators: Permanently installed transfer equipment for portable generators	\$66.90
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(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	\$1,765.50
4 to 6 plant electricians	24	\$3,532.80
7 to 12 plant electricians	36	\$5,298.90
13 to 25 plant electricians	52	\$7,066.20
More than 25 plant electricians	52	\$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 \$146.10

Each additional hour, or portion thereof, of portal-to-portal inspection time \$73.00

(j) Permit requiring ditch cover inspection only.

Each 1/2 hour, or portion thereof \$36.40

(k) Cover inspection for elevator/conveyance installation. This item is only available to a licensed/registered elevator contractor. \$61.30

(6) Carnival inspections.

(a) First carnival field inspection each calendar year.

(i) Each ride and generator truck \$17.30

(ii) Each remote distribution equipment, concession, or gaming show \$5.30

(iii) If the calculated fee for first carnival field inspection above is less than \$89.00, the minimum inspection fee shall be: \$91.80

(b) Subsequent carnival inspections.

(i) First ten rides, concessions, generators, remote distribution equipment, or gaming show \$91.80

(ii) Each additional ride, concession, generator, remote distribution equipment, or gaming show \$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 \$73.00

(ii) Subsequent inspection of a single concession or ride, not part of a carnival \$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.)	\$73.00
(b) Submitter notifies the department that work is ready for inspection when it is not ready.	\$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.	\$36.40
(d) More than one additional inspection required to inspect corrections; or for repeated neglect, carelessness, or improperly installed electrical work.	\$36.40
(e) Each trip necessary to remove a noncompliance notice.	\$36.40
(f) Corrections that have not been made in the prescribed time, unless an exception has been requested and granted.	\$36.40
(g) Installations that are covered or concealed before inspection.	\$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. \$36.40

(9) Plan review.

Fee is thirty-five percent of the electrical work permit fee as determined by WAC 296-46B-905, plus a plan review submission and shipping/handling fee of:

(a) Supplemental submissions of plans per hour or fraction of an hour of review time.	\$73.00
(b) Plan review shipping and handling fee.	\$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: \$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.) \$11.40

(13) Variance request processing fee.

Variance request processing fee. This fee is nonrefundable once the transaction has been validated. \$73.00

(14) Marking of industrial utilization equipment.

(a) Standard(s) letter review (per hour of review time).	\$73.00
(b) Equipment marking - charged portal-to-portal per hour:	\$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 <u>timed from leaving the previous inspection until the reinspection is completed</u>). See WAC 296-46B-110(8).	\$36.40
(c) <u>Reinspection of Class B basic electrical work because of a failed inspection of another Class B label (per 1/2 hour from previous inspection until the reinspection is completed)</u> . See WAC 296-46B-110(8).	\$36.40
(16) Provisional electrical work permit labels.	
(a) Block of twenty provisional electrical work permit labels.	\$200.00

AMENDATORY SECTION (Amending WSR 04-12-049, filed 5/28/04, effective 6/30/04)

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

Electrical testing laboratory

Initial filing fee: (Nonrefundable) \$516.00

Initial accreditation fee:

1 product category \$258.00

Each additional category for the next 19 categories \$103.20 each

Maximum for 20 categories or more \$2,218.80

Renewal fee: (Nonrefundable) 50% of initial filing fee

Renewal of existing accreditations

Each additional category for the next 19 categories \$103.20 each

Maximum for 20 categories or more \$2,218.80

Engineer for evaluating industrial utilization equipment

Initial filing fee: (Nonrefundable) \$516.00

AMENDATORY SECTION (Amending WSR 05-22-025, filed 10/25/05, effective 11/25/05)

WAC 296-46B-915 Civil penalty schedule. Each day that a violation occurs will be a separate offense.

Once a violation of chapter 19.28 RCW or chapter 296-46B WAC becomes a final judgment, any additional violation within three years becomes a "second" or "additional" offense subject to an increased penalty as set forth in the following tables.

In case of 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.

Continued or repeated violation may occur if the person, firm, partnership, corporation or other entity who violates a provision of chapter 19.28 RCW, chapter 296-46B WAC has received one or more written warnings of a similar violation within a one-year period.

A person, firm, partnership, corporation or other entity who violates a provision of chapter 19.28 RCW or chapter 296-46B WAC is liable for a civil penalty based upon the following schedule.

(1) Offering to perform, submitting a bid for, advertising, installing or maintaining cables, conductors or equipment:	
(a) That convey or utilize electrical current without having a valid electrical contractor's license.	
(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: \$250

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
Second offense:	\$1,000
Each offense thereafter:	\$2,000

(11) Failing to obtain or post an electrical/telecommunications work permit or provisional electrical work permit label 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
Second offense:	\$1,000
Each offense thereafter:	\$2,000

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

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

First offense:	\$1,000
Second offense:	\$1,500
Each offense thereafter:	\$3,000

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

First offense:	\$100
Second offense:	\$250
Third offense:	\$1,000
Each offense thereafter:	\$3,000

(c) Failing to ensure that the proper electrical safety procedures are used.
First offense: \$500

Second offense: \$1,500

Each offense thereafter: \$3,000

(d) Failing to ensure that all electrical labels, permits, and certificates required to perform electrical work are used.
First offense: \$250

Each offense thereafter: \$500

(e) Failing to ensure that all electrical licenses, required to perform electrical work are used (i.e., work performed must be in the allowed scope of work for the contractor).
First offense: \$500

Second offense: \$1,500

Third offense: \$3,000

Each offense thereafter: \$6,000

(f) Failing to see that corrective notices issued by an inspecting authority are complied with within fifteen days.
Exception: Where an extension has been requested and granted, this penalty applies to corrections not completed within the extended time period.
First offense: \$250

Second offense: \$1,000

Each offense thereafter: \$2,000

(g) Failing to notify the department in writing within ten days if the master electrician or administrator terminates the relationship with the electrical contractor.
First offense: \$500

Second offense: \$1,000

Each offense thereafter: \$3,000

(13) 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

~~((E: 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).))~~

AMENDATORY SECTION (Amending WSR 05-22-025, filed 10/25/05, effective 11/25/05)

WAC 296-46B-920 Electrical/telecommunications license/certificate types and scope of work. (1) General electrical (01): A general electrical license and/or certificate encompasses all phases and all types of electrical and telecommunications installations and minor plumbing under RCW 18.106.150. For the purposes of RCW 18.106.150, the like-in-kind replacement includes the appliance or any component part of the appliance (e.g., such as, but not limited to, the thermostat in a water heater).

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

(a) **Residential (02):** Limited to the telecommunications, low voltage, and line voltage wiring of one- and two-family dwellings, or multifamily dwellings not exceeding three stories 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(14), or commercial occupancies such as: Motels, hotels, offices, assisted living facilities, or stores.

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

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

(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 input power, regardless of motor controller output or motor voltage/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.

(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 stories on/above grade; or

Regardless of the number of stories above grade if the

installation:

✎ Does not pass between stories;

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

✎ Is restricted to the HVAC/refrigeration system;

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

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

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

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

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

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

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

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

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

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

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

(h) **Nonresidential lighting maintenance and lighting retrofit (07A):** Limited to working within the housing of existing nonresidential luminaires for work related to repair, service, maintenance of luminaires and installation of energy efficiency lighting retrofit upgrades. This specialty includes replacement of lamps, ballasts, sockets and the installation of listed lighting retrofit reflectors and kits. All work is limited to the luminaire body, except remote located ballasts may be replaced or retrofitted with approved products. This

specialty does not include installing new luminaires or branch circuits; moving or relocating existing luminaires; or altering existing branch circuits.

(i) **Residential maintenance (07B):** This specialty is limited to residential dwellings as defined in WAC 296-46B-920 (2)(a), multistory dwelling structures with no commercial facilities, and the interior of dwelling units in multistory structures with commercial facilities. This specialty may maintain, repair, or replace (like-in-kind) existing electrical utilization equipment, and all permit exempted work as defined in WAC 296-46B-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. This specialty cannot perform any plumbing work regulated under chapter 18.106 RCW.

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

This specialty cannot perform any work governed under Article(s) 500, 501, 502, 503, 504, 505, 510, 511, 513, 514,

515, or 516 NEC (i.e., classified locations). This specialty cannot perform any plumbing work regulated under chapter 18.106 RCW.

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

(i) For the purposes of this subsection:

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

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

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

(ii) This specialty includes:

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

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

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

(iii) This specialty does not include:

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

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

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

(l) **Equipment repair (07E):** Servicing, maintaining,

repairing, or replacing utilization equipment.

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

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

(i) This specialty includes:

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

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

(C) Optical fiber innerduct raceway.

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

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

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

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

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

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

(ii) This specialty does not include horizontal cabling used for fire protection signaling systems, intrusion alarms, access control systems, patient monitoring systems, energy management control systems, industrial and automation control systems, HVAC/refrigeration control systems, lighting control systems, and stand-alone amplified sound or public address systems. Telecommunications systems may interface with other building signal systems including security, alarms, and energy management at cross-connection junctions within telecommunications closets or at extended points of demarcation.

Telecommunications systems do not include the installation or termination of premises line voltage service, feeder, or branch circuit conductors or equipment. Horizontal cabling for a telecommunications outlet, necessary to interface with any of these systems outside of a telecommunications closet, is the work of the telecommunications contractor.

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

(i) For the purposes of this subsection, door/gate/similar systems electrical operator systems include electric gates, doors, windows, awnings, movable partitions, curtains and similar systems. These systems include, but are not limited to: Electric gate/door/similar systems operators, control push buttons, key switches, key pads, pull cords, air and electric treadle, air and electric sensing edges, coil cords, take-up reels, clocks, photo electric cells, loop detectors, motion detectors, remote radio and receivers, antenna, timers, lock-out switches, stand-alone release device with smoke detection, strobe light, annunciator, control panels, wiring and termination of conductors.

(ii) This specialty includes:

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

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

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

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

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

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

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

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

Table 920-1 Allowed Scope of Work Crossover

AMENDATORY SECTION (Amending WSR 05-10-024, filed 4/26/05, effective 6/30/05)

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 exceeding 250 volt 60 ampere single phase. The plug and cord can be field installed per the manufacturer's instructions and the product listing requirements. The 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.

(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, 2006,~~) 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 is an independent electrical power producer and the facility generates electrical power only for sale to one or more:

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

(B) The electrical power generated by the facility is not used for self-generation or any other on- or off-site function other than sale to one or more utilities regulated by FERC or by one or more state public utilities commissions, or to a PUD, municipal utility, or other form of governmental electric utility, or to an electric cooperative or mutual corporation.

(b) The entity must supply the chief electrical inspector a valid master business license issued by the department of licensing, state of Washington so that the entity's status as a revenue generating business can be confirmed.

(c) The entity has entered into an agreement to sell electricity to a utility or to a third party; and

(d) The electrical equipment is used to transmit electricity from the terminals of an electrical generating unit located on premises to the point of interconnection with a utility system.

(e) The electrical power production facility's generation capacity exceeds 115 KVA.

(f) Notwithstanding that a generating facility may be granted an exemption pursuant to this section, the facility will be subject to all the requirements of chapter 19.28 RCW if the facility at any time in the future ceases to comply with the requirements for exemption. All site facilities not exclusively and directly required to generate and/or distribute the electrical power generated on the site are subject to all the licensing and inspection requirements of chapter 19.28 RCW. All facility services, feeders, and circuits not exclusively and directly required to generate and/or distribute the electrical power (e.g., lights, outlets, etc.) must comply with all requirements of chapter 19.28 RCW for licensing and inspection. Facility circuits supplied to equipment required for the

function of generation equipment (e.g., block heaters, power supplies, 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.

Premanufactured electric power generation equipment assemblies and control gear.

(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 05-10-024, filed 4/26/05, effective 6/30/05)

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)(d) or (e).

Qualifying for the master electrician examination from out-of-state.

(3) No credit may be applied from out-of-state toward qualifying for a master electrician certificate of competency examination.

Qualifying for the 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⁾	Minimum Hours of Work Experience Required for Certification
Residential certificate (02)	4,000 ⁽³⁾	4,000
Pump and irrigation certificate (03)	4,000 ⁽³⁾	4,000
Domestic 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)	1,000 ⁽³⁾	2,000 ⁽⁶⁾
Appliance repair certificate (07D)	720 ⁽¹⁾⁽²⁾	2,000 ⁽⁶⁾
Equipment repair certificate (07E)	1,000 ⁽¹⁾⁽²⁾	2,000 ⁽⁶⁾
Door, gate, and similar systems certificate (10)	720 ⁽¹⁾⁽²⁾	2,000 ⁽⁶⁾

Notes:

⁽¹⁾Until the examination is successfully completed, the trainee must work under one hundred percent supervision. Once the appropriate examination is successfully completed, the modified supervision trainee may work under zero percent supervision.

⁽²⁾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) (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.

(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 05-10-024, filed 4/26/05, effective 6/30/05)

WAC 296-46B-960 Administrator and electrician certificate of competency examinations. General.

(1) The minimum passing score on any examination or examination section is seventy percent. If examination is requested to be administered by the department, an application is required and the examination must be successfully completed within one year of application or the individual must submit a new application for exam including all appropriate fees.

(2) All examinations are open book.

(a) Candidates may use:

(i) Any original copyrighted material;

(ii) A silent, nonprinting, nonprogrammable calculator that is not designed for preprogrammed electrical calculations;

(iii) Copies of chapter 19.28 RCW and this chapter; or

(iv) A foreign language dictionary that does not contain definitions.

(b) Candidates may not use:

(i) Copies of copyrighted material;

(ii) Copies of internet publications, except for RCWs or WACs;

(iii) Personal notes; or

(iv) A personal computing device of any type other than the calculator in (a)(ii) of this subsection.

(3) Administrator ~~((and))~~, master electrician, and electrician examinations may consist of multiple sections. All sections must be successfully completed within a one-year examination period ~~((of))~~ after beginning the examination. Within the one-year examination period, the candidate does not have to retake any sections successfully completed within the examination period. If all sections are not successfully completed within the one-year period, the candidate must begin a new examination period and retake all sections.

Special accommodations for examination.

(4) An applicant for an examination who, due to a specific physical, mental, or sensory impairment, requires special accommodation in examination procedures, may submit a written request to the chief electrical inspector for the specific accommodation needed.

(a) The applicant must also submit to the department a signed and notarized release, authorizing the specifically

identified physician or other specialist to discuss the matter with the department representative. The applicant must also submit an individualized written opinion from a physician or other appropriate specialist:

(i) Verifying the existence of a specific physical, mental, or sensory impairment;

(ii) Stating whether special accommodation is needed for a specific examination;

(iii) Stating what special accommodation is necessary; and

(iv) Stating if extra time for an examination is necessary and if so, how much time is required. The maximum allowance for extra time is double the normal time allowed.

(b) The written request for special accommodation and individualized written opinion must be submitted to the department at least six weeks in advance of the examination date and must be accompanied by a completed application and fees as described in WAC 296-46B-910.

(c) Only readers and interpreters provided from the administrative office of the courts and/or approved by the department may be used for reading or interpreting the examination. The applicant will be required to bear all costs associated with providing any reading or interpretive services used for an examination.

(d) Applicants who pass the examination with the assistance of a reader or interpreter will be issued a certificate with the following printed restriction: "Requires reading supervision for product usage." A competent reader or interpreter must be present on any job site where a person with this restriction is performing electrical work as described in chapter 19.28 RCW.

Applicants who pass the examination with the assistance of a mechanical device (e.g., magnifier, etc.) will be issued a certificate with the following printed restriction: "Requires mechanical reading assistance for product usage." Appropriate mechanical reading assistance must be present on any job site where a person with this restriction is performing electrical work as described in chapter 19.28 RCW.

If a candidate successfully retakes the examination without the assistance of a reader or translator, a new certificate will be issued without the restriction.

(5) Applicants who wish to use a foreign language dictionary during an examination must obtain approval at the examination site prior to the examination. Only dictionaries without definitions will be approved for use.

Failed examination appeal procedures.

(6) Any candidate who takes an examination and does not pass the examination may request a review of the examination.

(a) The department will not modify examination results unless the candidate presents clear and convincing evidence of

error in the grading of the examination.

(b) The department will not consider any challenge to examination grading unless the total of the potentially revised score would result in a passing score.

(7) The procedure for requesting an informal review of examination results is as follows:

(a) The request must be made in writing to the chief electrical inspector and must be received within twenty days of the date of the examination and must request a rescore of the examination. The written request must include the appropriate fees for examination review described in WAC 296-46B-910.

(b) The following procedures apply to a review of the results of the examination:

(i) The candidate will be allowed one hour to review their examination.

(ii) The candidate must identify the challenged questions of the examination and must state the specific reason(s) why the results should be modified with multiple published reference material supporting the candidate's position.

(iii) Within fifteen days of the candidate's review, the department will review the examination and candidate's justification and notify the candidate in writing of the department's decision.

Subjects included in administrator certificate, or master electrician, journeyman, or specialty electrician competency examinations.

(8) The following subjects are among those that may be included in the examination for an administrator certificate or electrician certificate of competency. The list is not exclusive. The examination may also contain subjects not on the list.

(a) For general administrators, master journeyman, and journeyman electricians:

AC - Generator; 3-phase; meters; characteristics of; power in AC circuits (power factor); mathematics of AC circuits.

Administration - Chapter 19.28 RCW and this chapter.

Air conditioning - Basic.

Blueprints - Surveys and plot plans; floor plans; service and feeders; electrical symbols; elevation views; plan views.

Building wire.

Cable trays.

Calculations.

Capacitive reactance.

Capacitor - Types; in series and parallel.

Circuits - Series; parallel; combination; basic; branch; outside branch circuits; calculations.

Conductor - Voltage drop (line loss); grounded.

Conduit - Wiring methods.

DC - Generator; motors; construction of motors; meters.
Definitions - Electrical.
Electrical units.
Electron theory.
Fastening devices.
Fire alarms - Introduction to; initiating circuits.
Fuses.
Generation - Electrical principles of.
Grounding.
Incandescent lights.
Inductance - Introduction to; reactance.
Insulation - Of wire.
Mathematics - Square root; vectors; figuring percentages.
Motors/controls - Motors vs. generators/CEMF; single phase;
capacitor; repulsion; shaded pole; basic principles of AC
motors.
Ohm's Law.
Power.
Power factor - AC circuits; correction of; problems.
Rectifiers.
Resistance - Of wire.
Rigging.
Safety - Electrical shock.
Services.
3-wire system.
Tools.
Transformers - Principles of; types; single-phase; 3-phase
connections.
Voltage polarity across a load.
Wiring methods - Conduit; general.
Wiring systems - Less than 600 volts; 480/277 volts;
single-and 3-phase delta or wye; distribution systems over 600
volts.

Note: The general administrator, master journeyman, and journeyman electrician examinations may also include the subjects listed below for specialty electrician examinations.

(b) For specialty administrators, master specialty and specialty electricians, the following subjects are among those that may be included in the examination. Examination subjects are restricted to those subjects related to the scope of work of the specialty described in WAC 296-46B-920. The list is not exclusive. The examination may also contain subjects not on the list.

AC - Meters.
Administration - Chapter 19.28 RCW and this chapter.
Appliance circuits or controls.
Blueprints - Floor plans; service and feeders.
Cables - Wiring methods.
Calculations.
Circuits - Series; parallel; combination; basic; outside

branch.

Conductor - Voltage drop (line loss); grounded; aluminum or copper.

Conduit - Wiring methods.

Electrical signs, circuits, controls, or services.

Electrical units.

First aid.

Fuses.

General lighting.

Grounding of conductors.

Insulation of wire.

Limited energy circuits or systems.

Maintenance of electrical systems.

Mathematics - Figuring percentage.

Motor circuits, controls, feeders, or services.

Ohm's Law.

Overcurrent protection.

Resistance of wire.

Safety - Electrical shock.

Services.

Sizes of building wire.

3-wire system.

Tools.

Transformer - Ratios; single-phase/3-phase connections.

Failing an administrator certificate exam or electrician certificate of competency examination.

(9) Anyone failing an administrator or electrician competency examination may retake the examination by making arrangements with the testing agency and paying the retesting fee.

(10) If the individual makes a score of less than sixty percent, the individual must wait two weeks before being eligible to retest.

(11) If the individual makes a score of sixty to sixty-nine percent, the individual must wait one day before being eligible to retest.

(12) If the individual fails an electrician examination or a part of an administrator or master electrician examination three times within a one-year period, the individual must wait three months to retake the failed portion of the examination.

(13) Anyone failing an electrician competency examination may continue to work in the electrical trade if they have a valid electrical training certificate and work under the direct supervision of a certified journeyman or specialty electrician in the proper ratio, per RCW 19.28.161. However, if the applicant holds a temporary specialty electrician certificate per WAC 296-46B-940(28), the applicant may continue to work under the temporary specialty electrician certificate until it

expires. After the temporary specialty electrician certificate expires, the applicant must obtain a valid electrical training certificate and work under the direct supervision of a certified journeyman or specialty electrician in the proper ratio, per RCW 19.28.161.

Cheating on an examination.

(14) Anyone found cheating on an examination or using inappropriate materials/equipment during an examination will be required to wait at least eleven months before being allowed to reexamine. All such reexaminations will be administered by the department in Tumwater, Washington and the candidate will be required to apply and schedule for the examination with the chief electrical inspector.

AMENDATORY SECTION (Amending WSR 04-12-049, filed 5/28/04, effective 6/30/04)

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 (~~erved on~~) given to 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 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 superior court per RCW 34.05.542(3).

(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.

(17) If appeal(s) according to subsections (11), (12), (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.

(18) Appeals - general requirements.

(a) Appeals according to subsections (11), (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), (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.

(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.

(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.

NEW SECTION

WAC 296-46B-997 Engineer approval. (1) This section describes the methods required to obtain recognition and accreditation of professional engineers registered under chapter 18.43 RCW to approve industrial utilization equipment. This section provides assurance to the general consuming public that electrical products have been tested for safety and identified for their intended use.

(2) Industrial utilization equipment is considered to be safe when it is certified by an engineer accredited by the department.

(a) The department may declare industrial utilization 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 industrial utilization equipment unsafe, the department will notify the product owner and the certifying engineer in writing.

Accreditation - general.

(3) The department's chief electrical inspector's office reviews requests for accreditation. Applicants must submit supporting data to document and verify the requirements of this section have been met.

(4) The accreditation of an engineer will be valid for the period of three years.

(5) On-site inspection of an engineer's facilities.

(a) On-site inspection of the facility(ies) may be required

during the initial application process or the renewal process. Representative(s) of the department will evaluate for compliance with accreditation criteria.

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

(6) For purposes of chapter 19.28 RCW, all engineers who certify industrial utilization equipment offered for sale in the state of Washington must be accredited by the department.

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

(8) The engineer must apply for renewal of accreditation at least thirty days prior to the accreditation expiration date. The department will renew accreditation for the period of three years or notify the renewing engineer of the department's reason(s) of refusal following receipt of the completed form and renewal fee.

(9) The department accepts or denies engineer accreditation for engineers seeking to evaluate industrial utilization equipment within the state. Accreditation is determined when an engineer 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 engineer.

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

(b) Every accredited engineer must continue to satisfy all the conditions specified in this chapter during the period of the accreditation. An engineer 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 industrial utilization equipment items approved;

(ii) Organizational structure of the engineer's company;

(iii) Statement of ownership of the engineer's company; and

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

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

(10) The engineer will be approved to certify industrial utilization equipment.

Suspension or revocation.

(11) The department may suspend, revoke, or refuse to renew the department's accreditation of any engineer found to be in noncompliance with requirements of this chapter, the laws of the state of Washington, or submitting false information.

(12) The department will serve written notice of intent prior to suspension, revocation, or refusal to renew the accreditation of an engineer.

(13) An engineer, whose accreditation has been suspended, may not reapply for accreditation during the period of such suspension. An engineer, whose accreditation has been revoked, may reapply for accreditation no sooner than two years after the date of revocation of accreditation.

Business structure, practices, and personnel.

(14) The engineer must be an independent, third-party organization with no organizational, managerial, financial, design, or promotional affiliation with owners, manufacturers, suppliers, installers, or vendors of products covered under the engineer's certification or evaluation programs.

The engineer 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 engineer.

(15) The engineer 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 to and attempt to resolve complaints contesting certifications and evaluation results;

(f) Maintain an independent relationship between its clients, affiliates, and other organizations so the engineer'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.

(16) Engineers 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; or

(c) Change in independent status.

(17) The engineer 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) Verification and maintenance of facilities and/or equipment; or

(d) Sample selection as applicable for product certifications, and for component testing as necessary for evaluations.

The plan must demonstrate that the engineer has adequate 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 engineer's operations control manual.

(18) The engineer must develop and maintain a quality control system adequate to assure the accuracy and technical integrity of its work as follows:

(a) The engineer's quality control system must include a quality control or engineer's operations control manual;

(b) The quality control or engineer's 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 engineer's certification and/or evaluation program(s); and

(c) The engineer must have a current copy of the quality control or engineer operations control manual available for the engineer's use.

(19) The engineer 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.

(20) The engineer must:

(a) Provide adequate safeguards protecting the engineer's status from the influence or control of manufacturers, vendors, owners, or installers of electrical products certified or tested by the engineer; and

(b) Develop and maintain an adequate training program assuring that the engineer will be able to perform tasks properly and uniformly.

Recordkeeping and reporting - general.

(21) The engineer must develop and maintain records and reports of those testing, inspection, certification, and evaluation activities associated with each piece of industrial utilization equipment. The engineer must retain these records for a minimum of three years.

(22) The engineer must make available to the department, upon request, all records required by the department to verify compliance with this chapter.

(23) The engineer's evaluation report must include:

(a) Name and address of the engineer;

- (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 of the overall product evaluated to include full nameplate data and equipment type;
- (f) A statement as to whether or not the results comply with the requirements of the standard;
- (g) Pertinent test evaluation data and identification of tests or inspections including anomalies;
- (h) The engineer's stamp; and
- (i) Any condition of acceptability or restrictions on use/relocation.

(24) Within thirty calendar days after affixing the evaluation mark, the engineer 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 engineer.

AMENDATORY SECTION (Amending WSR 05-10-024, filed 4/26/05, effective 6/30/05)

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

(1) This (~~chapter~~) section 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~~) section 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 web site posting; and/or

(D) News release.

Accreditation - general.

(3) The department's chief electrical inspector's office reviews requests for accreditation or evaluation. Applicants must submit supporting data (~~(as outlined in subsections (4) through (54))~~) to document and verify the requirements of this section have been met.

(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 of the laboratory;
- (iii) Statement of ownership of the laboratory;
- (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, or refuse to renew 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.

REPEALER

The following sections of the Washington Administrative Code are repealed:

WAC 296-46B-950	Opportunity for gaining credit for previous work experience gained in certain specialties.
WAC 296-46B-955	Appliance repair specialty electrician enforcement procedures.