

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

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

(i) Municipal or other government facilities;

(ii) Educational facilities or portions thereof;

(iii) Institutional facilities or portions thereof;

(iv) Restaurants;

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

(vi) Residential uses; or

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

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

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

similar storage equipment.

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

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

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

Safety standards.

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

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

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

(c) By department evaluation showing compliance with appropriate standards. Appropriate standards are NEMA, ANSI, NFPA 79, UL 508A or International Electrotechnical Commission 60204 or their equivalent. Industrial utilization equipment is required to conform to 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.

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

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.

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

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

(a) The certified electrician/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; 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 in the block must be inspected.

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

(9) Any electrical/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:

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

~~((i))~~ (A) No cover inspection is necessary; and

~~((ii))~~ (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/cabing systems, isolating switches, magnetic contactors, motor controllers, etc.

~~((b))~~ (ii) Like-in-kind replacement of ~~((a—single luminaire not exceeding two hundred seventy seven volts and twenty amps+))~~:

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

(B) A motor larger than ten horsepower; or

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

(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;

(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.

~~((c) Like-in-kind replacement of a motor larger than ten horsepower;~~

~~(d))~~ (iii) The following low voltage systems:

~~((i))~~ (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;

~~((ii))~~ (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.

~~((e) The like in kind replacement of an:~~

~~(i) 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~~

~~(ii) Unit heater, air conditioning unit or refrigeration unit not exceeding 240 volts, 30 minimum circuit amps when the unit is connected to an existing branch circuit;~~

~~(f))~~ (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;

~~((g))~~ (v) The ~~((combination replacement))~~ conversion of not more than ten ~~((switches or))~~ snap switches to dimmers ~~((used for))~~ for the use of controlling a luminaire(s) conversion.~~((; and~~

~~(h) The installation of a thermostat and/or thermostat cable where the thermostat cable is fished or extended in an existing building.~~

~~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.)~~

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

~~((a))~~ (i) Areas classified as Class 1, Class 2, Class 3, or Zone locations per ~~((the))~~ NEC 500;

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

~~((e))~~ (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-900 Electrical work permits and fees.
General.**

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

(a) A valid electrical work permit is completely and legibly filled out and readily available;

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

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

(d) Driving directions and/or a legible map is provided for the inspectors' use.

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

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

Permit - responsibility for.

(4) Each person, firm, partnership, corporation, or other entity must furnish a valid electrical work permit for the installation, alteration, or other electrical work performed or to be performed by that entity. Each electrical work permit application must be signed by the electrical contractor's administrator (or designee) or the person, or authorized representative of the firm, partnership, corporation, or other entity that is performing the electrical installation or alteration. Permits purchased electronically do not require a handwritten signature. An entity designated to sign electrical permits must provide written authorization of the purchaser's designation when requested by the department.

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

(6) Except for emergency repairs to existing electrical

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

(7) Fees must be paid in accordance with the inspection fee schedule, WAC 296-46B-905. The amount of the fee due is calculated based on the fee effective at the date payment is made. If the project is required to have an electrical plan review, the plan review fees will be based on the fees effective at the date the plans are received by the department for review.

Permit - requirements for.

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

(a) Travel trailers;

(b) Class A basic electrical work which includes:

(i) The like-in-kind replacement of a: Contactor, relay, timer, starter, circuit board, or similar control component; household appliance; circuit breaker; fuse; residential luminaire; lamp; snap switch; dimmer; receptacle outlet; thermostat; heating element; luminaire ballast with an exact same ballast; component(s) of electric signs, outline lighting, skeleton neon tubing when replaced on-site by an appropriate electrical contractor and when the sign, outline lighting or skeleton neon tubing electrical system is not modified; ten horsepower or smaller motor; (~~and~~)

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

(iii) Heat cable repair; and

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

Unless specifically noted, the exemptions listed do not include: The replacement of an equipment unit that contains multiple components (e.g., an electrical furnace/heat pump, industrial milling machine, etc.) containing various control components or any appliance/equipment described in WAC 296-46B-110(10) for Class B permits.

A provisional electrical work permit label may be posted in lieu of an electrical work permit. If a provisional electrical work permit label is used, an electrical work permit must be obtained within two working days after posting the provisional electrical work permit label.

(9) An electrical work permit is required for all

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

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

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

(c) All telecommunications installations within the residential dwelling units of single-family, duplex, and multifamily dwellings do not require permits or inspections. In residential multifamily dwellings, permits and inspections are required for all backbone installations, all fire barrier penetrations, and installations of greater than ten outlets in common areas.

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

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

Permit - inspection and approval.

(10) Requests for inspections.

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

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

(c) Emergency requests to inspect repairs necessary to preserve life and equipment safety may be requested at any time.

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

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

Permit - duration/refunds.

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

(a) Expired electrical work permits;

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

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

Permit - annual telecommunications.

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

Permit - annual electrical.

(14) The chief electrical inspector can allow annual permits for the inspection of electrical installations to be purchased by a building owner or licensed electrical contractor. This type of permit is available for commercial/industrial locations employing a full-time electrical maintenance staff or having a yearly maintenance contract with a licensed electrical contractor.

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

This type of electrical permit may be used for retrofit,

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

Provisional electrical work permit - use/duration/refunds.

(15) Only licensed electrical or telecommunications contractors can use provisional electrical work permits.

(16) If a provisional electrical work permit label is used, the following requirements must be met:

(a) Prior to beginning the work, the certified electrician or telecommunications worker performing the installation must affix the provisional electrical work permit label on the cover of the panelboard, overcurrent device, or telecommunications equipment supplying the circuit or equipment.

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

- (i) Date the work is begun;
- (ii) Contractor's name;
- (iii) Contractor's license number; and
- (iv) Short description of the work.

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

- (i) Date the work is begun;
- (ii) Contractor's license number;
- (iii) Job site address;
- (iv) Owner's name; and
- (v) Short description of the work.

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

(e) The contractor must return the contractor's portion of the label to the department of labor and industries, electrical section office having jurisdiction for the inspection, within two working days after the job site portion of the label is affixed. Either receipt by department of labor and industries or postmark to a valid department of labor and industries electrical address is acceptable for meeting this requirement.

(f) The contractor must return the contractor's portion of the label to the Department of Labor & Industries, Chief Electrical Inspector, within five working days after destroying or voiding any label.

(g) The contractor is responsible for safekeeping of all purchased labels.

(17) Refunds are not available for provisional electrical work permit labels.

(18) Provisional electrical work permit labels will be sold in blocks of twenty.

(19) Any contractor purchasing a provisional electrical work permit label may be audited for compliance with the provisions for purchasing, inspection, reporting of

installations, and any other requirement of usage.

Class B electrical work permit - use.

(20) The electrical contractor must return the contractor's portion of the Class B label to the department of labor and industries, chief electrical inspector, within five working days after destroying or voiding any label.

(21) The electrical contractor is responsible for safekeeping of all purchased Class B labels.

AMENDATORY SECTION (Amending WSR 04-21-086, filed 10/20/04, effective 11/22/04)

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)(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)(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

(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 (controlling a single piece of utilization equipment) and its associated cable controlling a single piece of utilization equipment or a single furnace and air conditioner combination.

- (i) First thermostat \$36.40
- (ii) Each additional thermostat inspected at the same time as the first \$11.40

(b) Class 2 or 3 low-voltage systems and telecommunications systems. Includes all telecommunications installations, fire alarm ((~~and burglar alarm~~)), nurse call, ((~~intercom, security systems,~~) energy management control systems, ((~~HVAC/refrigeration control systems other than thermostats above,~~)) industrial and automation control systems, lighting control systems, ((~~stand alone sound systems, public address,~~)) and similar 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
- (ii) Each additional 2500 sq. ft. or portion thereof \$11.40

(c) Signs and outline lighting.

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

(d) Berth at a marina or dock.

Note:

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

- (i) Berth at a marina or dock \$48.10
- (ii) Each additional berth inspected at the same time \$30.50
- (e) Yard pole, pedestal, or other meter loops only.

- (i) Yard pole, pedestal, or other meter loops only \$48.10
- (ii) Meters installed remote from the service equipment and inspected at the same time as a service, temporary service or other installations \$11.40
- (f) Emergency inspections requested outside of normal working hours.**
- Regular fee plus surcharge of: \$91.80

(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

(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: \$61.30

(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). \$36.40

(16) **Provisional electrical work permit labels.**

(a) Block of twenty provisional electrical work permit labels. \$200.00

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

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

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.

(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. **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.

(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 (~~luminaires, water heating equipment, ranges, electric heaters, similar household type appliances~~) 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 (~~luminaires, water heating equipment, ranges, electric heaters, similar household type appliances~~) 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: (~~Dish washers,~~) Ovens(~~(- water heating equipment)~~), office equipment, vehicle repair equipment, commercial kitchen equipment, self-contained hot tubs and spas, grinders, and scales.

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

(ii) This specialty includes:

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

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

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

(iii) This specialty does not include:

(A) The installation, repair, or modification of branch circuits conductors, services, feeders, panelboards, disconnect

switches, or raceway/conductor systems interconnecting multiple appliances, equipment, or other electrical components.

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

(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

