

## **Attachment A**

- (a) Purpose, summary, reasons supporting proposal, short explanation of rule, its purpose, and anticipated effect, and changes the proposal makes to existing rules.

The purpose of this rulemaking is to:

- Make changes to the electrical rules in response to the passage of Chapter 249, Laws of 2002 (Engrossed Senate Bill 6630) from the 2002 legislative session.
- Incorporate four chapters of rule (Chapter 296-46A, 296-401B, 296-13, and 296-402A) into a new Chapter 296-46B WAC.
- Adopt the latest edition of the National Electrical Code (with some exceptions) and other applicable consensus standards and necessary provisions associated with these standards.
- Make necessary changes to reflect current department practices.
- Incorporate policy into rule.
- Make necessary housekeeping changes.
- Make substantive and clarifying changes based on recommendations from stakeholder groups and the Electrical Board.

This rulemaking will repeal Chapter 296-46A, 296-401B, 296-13, and 296-402A WAC and replace them with a new Chapter 296-46B WAC.

### **Summary of changes of the proposed new rules**

Clear rule writing principles and other clarification changes were applied to the entire rewrite of the proposed new Chapter 296-46B WAC for purposes of clarity and to make them easier to understand and use.

### **WAC 296-46B-005 Chapter 19.28 RCW rule references.**

This section was created to clarify differences in WAC section numbers established by these proposed new rules and referenced in Chapter 19.28 RCW as a result of the 2002 legislative changes.

### **WAC 296-46B-010 General.**

This section was created to:

- Move applicable requirements from WAC 296-46A-090, 296-46A-095, 46A-100, 296-46A-130, 296-46A-140, 296-46A-155, and 296-46A-21052.
- Adopt the latest edition of several national consensus codes applicable to electrical installations (e.g. 2002 edition of the National Electrical Code – NEC).
- Make clarification changes to the variance procedures.
- Incorporate Electrical Board Policy 02-01.
- Make clarification changes based on changes to the NEC, including eliminating duplication of requirements found in the NEC.
- Add a requirement that sheeting and siding must be completed prior to the wiring installation and inspection.
- Make clarification changes relating to unaccepted electrical equipment based on current department policy and practice.
- Clarify that the tamper resistant receptacles or listed tamper resistant receptacle cover plates requirements now apply to areas accessible to children or psychiatric patients.
- Make several other necessary changes.

#### **WAC 296-46B-020 General definitions.**

Moved several of the definitions found in Chapter 296-46A, 296-401B, 296-13, and 296-402A WAC, Chapter 19.28 RCW and added/clarified several definitions necessary for use with this chapter.

#### **WAC 296-46B-030 Industrial control panel and industrial utilization equipment inspection.**

This section was created to:

- Move applicable requirements from WAC 296-46A-102.
- Incorporate changes based on current department policy.
- Correct references to Chapter 19.28 RCW
- Allow an exemption from listing/field evaluation for industrial process utilization equipment as allowed in RCW 19.28.010 using either national or international standards accepted by the department.

#### **WAC 296-46B-040 Traffic management systems.**

This section was created to:

- Move applicable requirements from WAC 296-46A-104.
- Clarify the requirements associated with the use and design traffic management system, incorporating department policy specifically regarding light rail installations.

#### **WAC 296-46B-110 General – Requirements for Electrical Installations.**

This section was created to:

- Clarify that unused openings must be closed.
- Clarify labeling requirements based on changes to the 2002 NEC.
- Clarify requirements associated with identifying a disconnecting means.
- Move the requirements found in WAC 296-46A-110.

#### **WAC 296-46B-210 Wiring and protection – Branch Circuits.**

- Align ground fault requirements with all occupancy types.
- Defines kitchens in other than dwelling units.

#### **WAC 296-46B-215 Wiring and protection – feeders.**

This section was created to move applicable requirements from WAC 296-46A-215.

#### **WAC 296-46B-220 Wiring and protection – Branch circuit, feeder, and service calculations.**

This section was created to move applicable requirements from WAC 296-46A-220.

#### **WAC 296-46B-225 Wiring and protection – Outside branch circuits and feeders.**

This section was created to move applicable requirements from WAC 296-46A-22530.

#### **WAC 296-46B-230 Wiring and protection – Services.**

This section was created to:

- Move the applicable requirements from WAC 296-46A-23001 (with the exception of the Uniform Building Code requirements associated with fire-wall separation), 296-46A-23028, 296-46A-23040 (clarifying the 18 inch extension requirements for conductors from mastheads), and 296-46A-23062.
- Clarify that it is the installer's responsibility to consult with the applicable utility for equipment location.

- Adopt requirements found in the 2002 NEC relating to number of services and clarified that service disconnects for a transient voltage surge suppressor is not required to be counted as 1 of the 6 services allowed.
- Clarify the requirements associated with multiple service installations for two family (duplex) buildings.
- Clarify the requirements associated with the maximum number of building service disconnects (6) allowed per the NEC and allowing separation of the service disconnects.
- Allow the use of either schedule 40 or 80 conduit for service conductors inside a building.
- Adopt department policy regarding installations prior to 1984.
- Clarify labeling requirements for service disconnects.
- Clarify that service conductors exceeding 600 volts requires the use of Galvanized rigid metal conduit, galvanized intermediate metal conduit, schedule 80 rigid nonmetallic conduit, metal-clad cable that is exposed for its entire length, cablebus, or busways.

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

This section was created to:

- Move applicable requirements from WAC 296-46A-250.
- Eliminate the ability of the grounded conductor (neutral) to be used as an equipment grounding conductor. In many installations, it is impossible to verify the existence or nonexistence of continuous metallic paths between buildings. This proposal treats all feeders the same, whether inside or outside the building. The delayed implementation date allows for a transition for the electrical industry.
- Incorporate systems of 1KV and over policy (01-06) into rule.

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

This section was created to:

- Move applicable requirements from WAC 296-46A-300 and 296-46A-30011.
- Add provisions to allow cable to be installed in all raceway systems if the wire fill requirements are met.

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

This section was created to move applicable requirements from WAC 296-46A-370 and added provisions to prevent the junction boxes from being concealed and buried by insulation.

**WAC 296-46B-334 Wiring methods and materials – Nonmetallic-Sheathed cable.**

This section was created to this section to retain similar provisions that existed in the 1999 NEC for the use of Nonmetallic-Sheathed cable.

**WAC 296-46B-358 Wiring methods and materials – Electrical Metallic Tubing.**

This section was created to move applicable requirements from WAC 296-46A-348.

**WAC 296-46B-394 Wiring methods and materials – Concealed Knob and Tube Wiring.**

This section was created to move applicable requirements from WAC 296-46A-324.

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

This section was created to move applicable requirements from WAC 296-46A-41004 and 296-46A-41030 and added new terminology for “fixture.”

**WAC 296-46B-422 Equipment for general use – Appliances.**

This section was created to move applicable requirements from WAC 296-46A-422 and clarify voltage levels when performing calculations and installations.

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

This section was created to clarify the requirements associated with motors, motor circuits, and controllers.

**WAC 296-46B-450 Equipment for general use – Transformers and transformer vaults.**

This section was created to move applicable requirements from WAC 296-46A-450 (with the exception of subsection (1) of that section).

**WAC 296-46B-501 Special occupancies – Class 1 locations.**

This section was created to move the applicable requirements from WAC 296-46A-500 and clarify the requirements associated with residential wastewater loading characteristics.

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

This section was created to move the applicable requirements from WAC 296-46A-514 and clarify the requirements associated with emergency disconnecting pushbuttons.

**WAC 296-46B-517 Special occupancies – Health care facilities.**

This section was created to move the applicable requirements from WAC 296-46A-517.

**WAC 296-46B-520 Special occupancies – Theaters, motion picture and television studios, performance areas and similar areas.**

This section was created to move the applicable requirements from WAC 296-46A-365.

**WAC 296-46B-527 Special occupancies – Temporary installations.**

This section was created to:

- Add provisions to clarify that a circuit used for construction purposes is considered to be temporary and to prevent open splices of cord and other temporary wiring methods.
- Move the applicable notes from WAC 296-46A-910.

**WAC 296-46B-550 Special occupancies – Mobile homes, manufactured homes and mobile home parks.**

This section was created to:

- Move the applicable requirements from WAC 296-46A-550.
- Eliminate the need for an insulated equipment ground conductor for a mobile home when a permanent underground wiring method is used.

**WAC 296-46B-553 Special occupancies – Floating buildings.**

This section was created to:

- Move the applicable requirements from WAC 296-46A-553.
- Clarify that the use of cord to supply floating buildings adjacent to docks is allowed.

### **WAC 296-46B-555 Special occupancies – Marinas and boatyards.**

This section was created to:

- Add provisions to allow existing docks to be modified without requiring a complete rewiring, which would be required under the 2002 NEC.
- Clarify the requirements associated with classified boundaries on docks for gas pumps consistent with an Electrical Board determination.

### **WAC 296-46B-600 Special equipment – Electric signs and outline lighting.**

This section was created to:

- Move the applicable requirements from WAC 296-46A-600.
- Allow for the use of neon tubing, which is not allowed in the 2002 NEC.

### **WAC 296-46B-680 Special equipment – Swimming pools, fountains and similar installations.**

This section was created to:

- Move the applicable requirements from WAC 296-46A-680.
- Clarify that the five-foot requirement associated with disconnects/listed equipment also applies to swim spas.
- Clarify the equipment location requirements.

### **WAC 296-46B-700 Special conditions – Emergency systems.**

This section was created to:

- Move the applicable requirements from WAC 296-46A-700 and eliminate unnecessary provisions.
- Clarify that the State Building Code Council standards for emergency lights must be followed.
- Clarify that the identification plates (larger than 6" x 6") and all other boxes associated with this section must be substantially orange in color.

### **WAC 296-46B-800 Communications systems – Communications circuits.**

This section was created to clarify the boundaries associated with a telecommunication installation on an end-user's property and complying with the requirements of Chapter 19.28 RCW and this chapter.

### **WAC 296-46B-900 Electrical work permits and fees.**

This section was created to:

- Move the applicable requirements from WAC 296-46A-900.
- Clarify that the amount of the fee due is calculated based on the fee effective at the date payment is made.
- Reference the owner's "full-time telecommunications maintenance staff" for consistency with RCW 19.28.470(1)(d)(i).
- Clarify the requirements associated with annual permits consistent with current department practice. These permits are intended to primarily to be used for maintenance activities and small circuit revisions, not new/altered services or new structure(s).

### **WAC 296-46B-905 Inspection fees.**

This section was created to:

- Move the applicable requirements from WAC 296-46A-910.
- Eliminate the water heater load control fee that expired on December 31, 2001.
- Clarify that the fees associated with thermostats consistent with department practice. Thermostat(s) controlling multiple equipment or multiple thermostats controlling a single or

multiple equipment are calculated using the square foot method.

- Clarify that an altered generator may be charged the reduced fees for altered service/feeder.
- Create a new fee specific to ditch cover inspections. Previously, this type of inspection had been charged the same fee under the WAC 296-46A-910 (11)(a).
- Create a new fee for cover inspections for elevator/conveyance installations. Currently, the Elevator program performs and requires these types of inspections. This fee allows the electrical program to perform this inspection as well.
- Clarify that existing inspections associated with trip fees is limited to one hour. Additional time required for the inspection will be charged accordingly.
- Create a new fee associated with the department's ability to perform industrial utilization equipment marking.

**WAC 296-46B-910 Electrical/telecommunications contractor's license, administrator certificate and examination, master electrician certificate and examination, temporary, electrician certificate and examination, temporary electrician permit, copy, and miscellaneous fees.**

This section was created to:

- Move the applicable requirements from WAC 296-46A-910.
- Clarify that the department may prorate licenses and certificates for shorter renewal periods in 1-year increments.
- Add a fee for department-administered examinations.
- Combine certain fees under the original certificate fee.
- Make a clarification change to the fees charged by testing contractors.
- Add fees associated with the 2002 legislative changes.
- Add a fee to allow out-of-state applicants for a reciprocal license to pay a reduced fee.
- Add a new fee for the replacement of certificates.

**WAC 296-46B-911 Electrical Testing Laboratory Fees.**

This section was created to move the applicable requirements from WAC 296-402A-110.

**WAC 296-46B-915 Civil penalty schedule.**

This section was created to:

- Move the applicable requirements from WAC 296-46A-920.
- Increase penalties associated with repeat violations and provide for a potential waiver of the first penalty in some instances.

**WAC 296-46B-920 Electrical/telecommunications license/certificate types and scope of work.**

This section was created to:

- Move the requirements found in WAC 296-46A-930.
- Make changes and add additional scopes of work based on the 2002 legislative changes.
- Expand the scope of the domestic well specialty to include residential septic systems.
- Change the reference of "lighting fixture" with luminaries to maintain consistency with the 2002 NEC.
- Expand the scope of the HVAC/refrigeration specialty.
- Add a new specialty for equipment repair.
- Clarify that video with low-voltage wire requires an applicable license in the telecommunication scope of work.
- Make substantive changes to the requirements for those performing HVAC/R work, including the creation of a new HVAC/R – restricted (06B) license.

### **WAC 296-46B-925 Electrical/telecommunications contractor license.**

This section was created to:

- Move applicable requirements from WAC 296-46A-930, 296-46A-931, 296-46A-932, 296-46A-933, 296-46A-934, 296-46A-935, and 296-46A-940.
- Clarify information that is printed on the license.
- Eliminate the requirement for “continuing until canceled” relating to how the telecommunications insurance must be issued.
- Add provisions to clarify the requirements associated with installations covered by article 680 NEC relating to swimming pools.
- Make changes based on 2002 legislative changes.
- Add a provision to exclude unregulated telecommunications utility type providers from the licensing requirements.
- Incorporate changes to address board policy 99-15 relating to leaseholders and assisting householders, and assisting other property owners when the work is performed and the person assisting the householder does not accept money or other forms of compensation for the volunteer work.
- Incorporate changes to address board policy 01-05 relating to street lighting exemptions.
- Incorporate changes to address department policy and practice relating to exemptions for independent electrical power production equipment.
- Make clarification changes for telephone/telegraph exemption for unregulated telecommunication carriers.
- Require notification for modifications to equipment if reapproval/recertification is required.
- Make clarification changes relating to medical equipment installations.
- Created an exemption for electrical utility telecommunications transition equipment installations, maintenance and repair until July 1, 2004.

### **WAC 296-46B-930 Assignment – administrator or master electrician.**

This section was created to:

- Move applicable requirements from WAC 296-46A-930 and 296-46A-950.
- Make changes based on 2002 legislative changes.
- Add provisions relating to business status for purposes of temporary administrator status.

### **WAC 296-46B-935 Administrator certificate.**

This section was created to:

- Move applicable requirements found in WAC 296-46A-930 and 296-46A-950.
- Make changes based on 2002 legislative changes.

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

This section was created to:

- Move applicable requirements from several sections in Chapter 296-401B WAC.
- Make changes based on 2002 legislative changes.
- Clarify provisions relating to temporary electrician permit to allow the holder to work under the permit.
- Clarify requirements associated with out of state experience.
- Added provisions associated with work experience acquired when a license is not required.

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

This section was created to:

- Move applicable requirements from WAC 296-401B-455.
- Make changes based on 2002 legislative changes.
- Provide an amount of time for individuals to comply with the licensing requirements of this chapter.

**WAC 296-46B-950 Opportunity for gaining credit for previous experience gained in certain specialties.**

This section was created to make changes based on 2002 legislative changes and establishes procedures and time lines for accepting previous experience to qualify for new and some existing specialty examinations.

**WAC 296-46B-951 Domestic Appliance specialty.**

This section was created to make changes based on 2002 legislative changes to eliminate the domestic appliance specialty and replace the licenses with residential (02) licenses.

**WAC 296-46B-955 Specialty contractor/electrician enforcement procedures.**

This section was created to move applicable requirements from WAC 296-401B-920.

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

This section was created to:

- Move applicable requirements from WAC 296-401B-300, 296-401B-500, and 296-401B-510.
- Make clarification changes relating to passing scores and materials acceptable for use during the examination.
- Eliminate the requirements associated with retaking test portions provided all sections are completed in a 1-year period.
- Incorporate language relating to special accommodations for administering, taking, and appealing examinations.
- Establish a time period for retests based on percentage.

**WAC 296-46B-965 Training certificate required.**

This section was created to:

- Move applicable requirements from WAC 296-401B-300, 296-401B-310, 296-401B-330, 296-401B-340.
- Eliminate the different training certificate levels and established a section for original training certificates.
- Defines procedures for submitting affidavits of experience for electrical trainees and individuals in electrical apprenticeship programs.
- Make changes based on 2002 legislative changes.

**WAC 296-46B-970 Continuing education.**

This section was created to:

- Move applicable requirements from WAC 296-401B-130, 296-401B-600, 296-401B-610, 296-401B-620, 296-401B-630, 296-401B-640, 296-401B-350.
- Clarify that telecommunications administrators do not require continuing education.
- Make changes based on 2002 legislative changes.
- Clarify that courses must be based on the NEC based on Electrical Board interpretation.

**WAC 296-46B-971 Training Schools.**

This section was created to make changes based on 2002 legislative changes.

**WAC 296-46B-975 Electrical Audit.**

This section was created to:

- Move applicable requirements from WAC 296-401B-350.
- Clarify changes relating to time period covered for the audit, purpose of the audit, and the inspection of records consistent with current department practice.

**WAC 296-46B-980 Enforcement – installations, licensing, and certification requirements.**

This section was created to:

- Move applicable requirements from WAC 296-401B-900.
- Clarify that the department inspects the electrical work site but is not responsible for the installation itself.

**WAC 296-46B-985 Penalties for false statements or material misrepresentations.**

This section was created to move applicable requirements from WAC 296-401B-630 and 296-401B-800.

**WAC 296-46B-990 Failure to comply with the electrical contractor licensing, administrator certification, or electrician certification laws.**

This section was created to:

- Move applicable requirements from WAC 296-401B-850, 296-401B-870, 296-401B-910, 296-401B-950, and 296-401B-960.
- Extend “continuous noncompliance” from one to three years.

**WAC 296-46B-995 Electrical Board - Appeal rights and hearings.**

This section was created to:

- Incorporate applicable provisions and/or references from Chapter 296-13 WAC and adopted Chapter 34.05 RCW and Chapter 10-08 WAC for use with appeals and hearings under Chapter 19.28 RCW.
- Make changes to the appeal procedures based on recommendations from the Electrical Board.

**WAC 296-46B-998 Standards.**

This section was created to move applicable requirements from WAC 296-402A-450, 296-402A-460, 296-402A-470.

**WAC 296-46B-999 Electrical Testing Laboratory requirements.**

This section was created to:

- Move applicable requirements from several sections in Chapter 296-402A WAC.
- Establish a 30-day requirement for submitting an evaluation report to the department.

**Attachment B**

1  
2 **(b) Describe any changes other than editing from proposed to adopted version:**

3  
4 **WAC 296-46B-010 General. Adopted standards - inspectors - city inspection - variance.**

5 The reference to WAC 296-46B-030(2)(d) in subsection (9) of this section was corrected to WAC  
6 296-46B-030(3).

7  
8 WAC 296-46B-501 Special occupancies NEC Class 1 locations.

9 The reference to chapter 18.201 RCW in subsection (2)(a)(i) of this section was corrected to chapter  
10 18.210 RCW.

11  
12 **WAC 296-46B-910 Electrical/telecommunications contractor's license, administrator**  
13 **certificate and examination, master electrician certificate and examination, temporary,**  
14 **electrician certificate and examination, temporary electrician permit, copy, and miscellaneous**  
15 **fees.**

16 The statements “application or” and “owes money as a result of an outstanding final judgment(s) to  
17 the department or” were removed in Note 1 of this section.

18  
19 **WAC 296-46B-915 Civil penalty schedule.**

20 The reference to note E was eliminated in subsection (11) of this section as it is not applicable to  
21 this civil penalty. Also, a reference was corrected in subsection (12) of this section.

22  
23 **WAC 296-46B-920 Electrical/telecommunications license/certificate types and scope of work.**

24 The reference to WAC 296-46B-920 was corrected in subsection (2)(h)(i) of this section. Also, the  
25 scope of the Restricted nonresidential maintenance (07C) specialty was changed in subsection (2)(j)  
26 of this section consistent with expected legislative changes. Lastly, a reference to duplicate  
27 reference to “grinders” was removed in subsection (2)(l)(i)(B) of this section.

28  
29 **WAC 296-46B-925 Electrical/telecommunications contractor's license. General.**

30 The statement “or application” was removed from subsection (3) of this section.. Also, “For  
31 transfer equipment” was added in subsection (21)(a)(i) of this section for purposes of clarity. In  
32 addition, the medical equipment provisions in subsection (22) of this section for purposes of clarity  
33 and consistent with expected legislative changes.

34  
35 Lastly, a change was made to clarify that the exemption in subsection (8) of this section does not  
36 apply to electric signs. This change was made based on public comment.

37  
38 **WAC 296-46B-930 Assignment--Administrator or master electrician.**

39 The date for beginning full enforcement was changed in Table 930-1 from October 1, 2004 to  
40 August 1, 2004. This change was made based on public comment.

41  
42 **WAC 296-46B-935 Administrator certificate. General.**

43 The reference to “application or” was removed from subsection (1) of this section.

44  
45 **WAC 296-46B-940 Electrician/training/temporary certificate of competency or permit**  
46 **required. Electrician - general.**

47 The reference to “application or” was removed from subsection (1) of this section.  
48

49 **WAC 296-46B-945 Qualifying for master, journeyman, specialty electrician examinations.**  
50 **Qualifying for master, journeyman, specialty electrician examinations.**  
51 Subsection (1) of this section was removed. Also, new Notes 8 and 9 were added to Table 945-1  
52 based on expected legislative changes.

53  
54 **WAC 296-46B-950 Opportunity for gaining credit for previous work experience gained in**  
55 **certain specialties.**  
56 The date for beginning full enforcement was changed in Table 950-1 from October 1, 2004 to  
57 August 1, 2004. This change was made based on public comment.

58  
59 **WAC 296-46B-955 Specialty contractor/electrician enforcement procedures.**  
60 A header identifying Figure 955-1 was added for purposes of clarity.

61  
62 In addition, the date for beginning full enforcement was changed in Figure 955-1 from October 1,  
63 2004 to August 1, 2004. This change was made based on public comment.

64  
65 **WAC 296-46B-965 Training certificate required. General.**

66 The following statement, “and trainees owing money as a result of a final judgment to the  
67 department” was removed from subsection (2) of this section and consistent provisions were added  
68 to subsection (5) of this section for purposes of clarity.

### **Attachement C**

69  
70 **(c) Specify effective date of adopted rules:**

71  
72 **The following sections take effect on May 23, 2003 (31 days after adoption):**

73 Repeal - Chapter 296-46A WAC  
74 Repeal - Chapter 296-13 WAC  
75 Repeal - Chapter 296-401B WAC  
76 Repeal - Chapter 296-402A WAC  
77 New - WAC 296-46B-005 through 296-46B-010  
78 New - WAC 296-46B-030 through 296-46B-800  
79 **New - WAC 296-46B-970 through 296-46B-998**

80  
81 **The following sections take effect immediately:**

82 **New - WAC 296-46B-020**  
83 **New - WAC 296-46B-900 through 296-46B-965**

84  
85 The immediate effective date for these sections is necessary to allow certain types of electrical  
86 contractors and installers to come into compliance with these rule changes. These changes are  
87 necessary for the purposes of implementing provisions included in Chapter 249, Laws of 2002  
88 (Engrossed Senate Bill 6630) that was enacted last legislative session. In addition, these rules assist  
89 in ensuring that public health, safety, and welfare are achieved through compliance with these rule  
90 changes for purposes of consumer and worker protection through the licensure of bonded electrical  
91 contractors and certification of electrical administrators and those individuals performing electrical  
92 work.