



# RULE-MAKING ORDER PERMANENT RULE ONLY

## CR-103P (December 2017) (Implements RCW 34.05.360)

CODE REVISER USE ONLY

OFFICE OF THE CODE REVISER  
STATE OF WASHINGTON  
FILED

DATE: February 21, 2024

TIME: 11:09 AM

WSR 24-05-085

**Agency:** Department of Labor & Industries (L&I)

**Effective date of rule:**

**Permanent Rules**

- 31 days after filing.
- Other (specify) April 1, 2024 (If less than 31 days after filing, a specific finding under RCW 34.05.380(3) is required and should be stated below)

**Any other findings required by other provisions of law as precondition to adoption or effectiveness of rule?**

- Yes  No If Yes, explain:

**Purpose:** The purpose of this rulemaking is to adopt the 2023 edition of the National Fire Protection Agency (NFPA) 70, the National Electrical Code (NEC), and other related codes for electrical. The 2023 NEC (NFPA 70-2023) replaces the 2020 NEC (NFPA 70-2020) adopted standards.

L&I's Electrical Program reviewed Chapter 296-46B WAC, Electrical safety standards, administration, and installation, and adopting the 2023 NEC (NFPA 70-2023) updates the rules for consistency with the latest national safety standards and industry practice. The 2023 edition of the code presents the latest comprehensive regulations for electrical wiring, overcurrent protection, grounding and installation of equipment.

The review process included an opportunity for electrical stakeholders and other interested parties to participate in the review of existing rules, submit proposals and provide recommendations for possible rule amendments. A Technical Advisory Committee (TAC) of industry experts and the Electrical Board reviewed the proposals and provided advice on adoption of the rules. This rulemaking adopts the latest safety codes, and other amendments to the rules identified during the formal review process and recommended by stakeholders to improve public safety.

A summary of the adopted updates to Chapter 296-46B WAC are as follows:

**New Sections**

**WAC 296-46B-235 Branch circuits, feeders, and services over 1,000 volts ac, 1,500 volts dc nominal.**

- Creates a new section for an exception to not restrict wiring methods when proper overcurrent protection is provided.

**WAC 296-46B-692 Fuel cell systems.**

- Creates a new section that requiring installers to provide a system design review defined under WAC 296-46B-100 that will likely improve conformance to code requirements intended to protect life and property.

**WAC 296-46B-710 Standalone systems.**

- Creates a new section to implement a design review requirement for standalone systems.

**Amended Sections**

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

- Amends references to adopt the 2023 NEC (NFPA 70-2023), which is the latest version of the code published in September 2022.
- Amends language to automatically adopt the latest published versions of the American National Standards Institute and Telecommunications Industry Association (ANSI/TIA) and National Electrical Safety Code (NESC).
- Removes references to the Electronic Industries Alliance (EIA), as this organization no longer exists.
- Amends language for general housekeeping, such as updating references, clarifying language, removing obsolete language, renumbering subsections, etc.

**WAC 296-46B-100 General definitions.**

- Adds a new definition to define the meaning of "equivalent apprenticeship program", due to the passage of Substitute Senate Bill 6126 (SSB 6126), Chapter 249, Laws of 2018.
- Amends the definitions of "WAC" and "RCW" to clarify that only electronic copies of the electrical laws and rules are available from L&I and the Office of the Code Reviser.
- Amends NEC reference 725.121(A) to 725.60(A) to reflect updated references made by the NEC.

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

- Amends language for general housekeeping, such as punctuation and updating the section title.

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

- Adds language that does not require future provisions for receptacle outlets installed on islands or peninsular countertops or work surfaces.
- Adds language that clarifies “accessible” locations for equipment that requires servicing outdoors, as the code is unclear.
- Amends the section title for consistency with the 2023 NEC and to narrow content.

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

- Amends the section title to narrow focus of content.

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

- Amends the section title, header and references for consistency with the 2023 NEC.

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

- Amends references related to feeder disconnecting means for uniformity with the 2023 NEC.
- Amends language for general housekeeping, such as updating the section title and headers, clarifying language, and relocating and restructuring existing language.

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

- Adds exceptions to wiring methods for service conductors within a building or structure when protected by customer owned supply side overcurrent protection.
- Adds language that clarifies when an emergency disconnecting means must be installed if replacing existing equipment.
- Amends language for general housekeeping, such as the section title, renumbering subsections, relocating language, and removing obsolete language.

**WAC 296-46B-240 Overcurrent protection.**

- Includes roofs in the requirement that overcurrent protection equipment enclosures be installed 24 inches above the surface.
- Creates new subsections requiring documentation to assure that testing required by the NEC 240.67 and NEC 240.87 is performed.

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

- Adds new language to clarify when concrete electrode requirements apply where additions are made to existing foundations.
- Amends the section title to narrow focus of content.

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

- Amends language for general housekeeping, such as updating section title and header and reference.

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

- Adds a new subsection to clarify the locations acceptable for installing ceiling-suspended (paddle) fans for consistency with L&I’s existing practice.
- Adds clarifying language to include device accessibility for consistency with the 2023 NEC.
- Amends the section title and header for consistency with the 2023 NEC and to narrow content.

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

- Adds new language that clarifies wet or damp locations and conditions for installing non-metallic sheath (NM) cables for consistency with L&I’s existing practice.
- Amends the title for consistency with the 2023 NEC.

**WAC 296-46B-358 Wiring methods and materials- Electrical metallic tubing.**

- Amends the title to narrow focus of content.

**WAC 296-46B-394 Wiring methods and materials- Concealed knob-and-tube wiring.**

- Updates table references for consistency with the 2023 NEC table.
- Amends the title to narrow focus of content.

**WAC 296-46B-408 Equipment for general use- Switchboards, switchgear, and panelboards.**

- Amends the title to narrow focus of content.

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

- Amends language for general housekeeping, such as updating section title and header, and term for use in the 2023 NEC.

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

- Amends the title to narrow focus of content.

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

- Amends the title and header for consistency with the 2023 NEC and to narrow focus of content.

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

- Amends the title to narrow focus of content.

**WAC 296-46B-505 Class I, Zone 0, 1, and 2 locations.**

- Amends the title for consistency with the 2023 NEC.

**WAC 296-46B-513 Special occupancies- Aircraft hangars.**

- Amends the title to narrow focus of content.

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

- Updated reference to align with the 2023 NEC.
- Amends the title to narrow focus of content.

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

- Amends the title and header for consistency with the NEC and to narrow focus of content.

**WAC 296-46B-547 Special occupancies- Agricultural buildings.**

- Amends the title to narrow focus of content.

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

- Adds new language to allow for mounting of service equipment on mobile/manufactured homes if approved by the manufacturer.
- Amends the title to narrow focus of content.

**WAC 296-46B-555 Special occupancies- Marinas, boatyards, floating buildings, and commercial and noncommercial docking facilities.**

- Amends language to clarify the meaning of corrosion resistant and provide information for what is acceptable.
- Amends the title to narrow focus of content.

**WAC 296-46B-590 Special occupancies- Temporary installations.**

- Amends the title to narrow focus of content.

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

- Amends the title to narrow focus of content.

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

- Amends the title for consistency with the 2023 NEC and to narrow focus of content.

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

- Amends language for general housekeeping, such as updating the title, removing a header, and renumbering subsections.

**WAC 296-46B-690 Solar photovoltaic systems.**

- Adds new language to clarify availability of the design review defined under WAC 296-46B-100.

**WAC 296-46B-694 Wind electric systems.**

- Adds new language that clarifies the availability of the design review defined under WAC 296-46B-100.

**WAC 296-46B-700 Emergency systems.**

- Adds new requirements for selective coordination when overcurrent devices are replaced for consistency with the 2023 NEC.
- Amends header for consistency with the 2023 NEC.

**WAC 296-46B-701 Legally required standby systems.**

- Adds new requirements for selective coordination when overcurrent devices are replaced for consistency with the 2023 NEC.
- Amends header for consistency with the 2023 NEC.

**WAC 296-46B-702 Optional standby systems.**

- Amends the requirements pertaining to placing signs for consistency with the 2023 NEC.

**WAC 296-46B-705 Interconnected electric power production sources.**

- Adds new subsection requiring installers to provide a system design review for interconnected electric power production sources.

**WAC 296-46B-800 Communications systems—Communications circuits.**

- Amends the title and header for consistency with the 2023 NEC and to narrow focus of content.

**WAC 296-46B-908 Class B permits. Class B electrical work permit - Use.**

- Amends language to extend the validity of Class B permits to 120 days to allow more time for installations.

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

- Amends language for general housekeeping, such as relocating and restructuring requirements for the (06A) and (06B) scopes of work, clarifying language, updating references, renumbering subsections, etc.

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

- Amends subsection numbers for consistency with Senate Bill 6170, Chapter 153, Laws of 2020.

**WAC 296-46B-942 Training certificate required. General.**

- Amends language to clarify the submittal requirements for affidavits to streamline the process.
- Removes obsolete language.

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

- Amends language that allows special accommodations for candidates with language barriers when taking the electrician certificate of competency examination. This also includes:
  - Removing the requirement for a notarized release to discuss matters, written opinion from a physician or other appropriate specialist is adequate.
  - Amending the order of actions necessary for approval of a special accommodations request.
  - Streamlines requirements an applicant with Limit English Proficiency to request an accommodation.

**Repealed Sections**

**WAC 296-46B-406R Equipment for general use-Receptacles.**

- Repeals the rule as these requirements are obsolete and now addressed in 2023 NEC 406.12.

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

- Repeals the rule to align with NEC 440.8 that may consider split systems a “single machine” under certain conditions.

**Citation of rules affected by this order:**

New: WAC 296-46B-235, 296-46B-692, and 296-46B-710

Repealed: WAC 296-46B-406R and 296-46B-440

Amended: WAC 296-46B-010, 296-46B-100, 296-46B-110, 296-46B-210, 296-46B-215, 296-46B-220, 296-46B-225, 296-46B-230, 296-46B-240, 296-46B-250, 296-46B-300, 296-46B-314, 296-46B-334, 296-46B-358, 296-46B-394, 296-46B-408, 296-46B-410, 296-46B-422, 296-46B-450, 296-46B-501, 296-46B-505, 296-46B-513, 296-46B-514, 296-46B-517, 296-46B-547, 296-46B-550, 296-46B-555, 296-46B-590, 296-46B-600, 296-46B-620, 296-46B-680, 296-46B-690, 296-46B-694, 296-46B-700, 296-46B-701, 296-46B-702, 296-46B-705, 296-46B-800, 296-46B-908, 296-46B-920, 296-46B-925, 296-46B-942, and 296-46B-960

Suspended: None.

**Statutory authority for adoption:** Chapter 19.28 RCW Electricians and Electrical Installations including RCW 19.28.031 and 19.28.251

**Other authority:** None.

**PERMANENT RULE (Including Expedited Rule Making)**

Adopted under notice filed as WSR 23-24-084 on December 5, 2023 (date).

- Describe any changes other than editing from proposed to adopted version:

**WAC 296-46B-100, General definitions.**

- Subsections (c) and (d) were amended under the definition of “low voltage”. The references to NEC 725.121(A) were updated to NEC 725.60(A) for consistency with the NEC.

**WAC 296-46B-920, Electrical/telecommunications license/certificate types and scope of work.** The following subsections that allow an increase in the scope of work for (06A) HVAC/refrigeration specialty electricians were removed from the adopted rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking:

- WAC 296-46B-920(2)(f)(iii)(A)(IX) allowing certain wiring of mini-split HVAC systems.
- WAC 296-46B-920(2)(f)(iii)(A)(X) allowing installation of external overcurrent protection devices for replacement gas or oil furnaces.
- WAC 296-46B-920(2)(f)(iii)(A)(XI) allowing installation of surge protection devices for HVAC equipment.
  - In WAC 296-46B-920(2)(f)(iii)(A), removed the exception referring to WAC 296-46B-920(2)(f)(iii)(A)(IX) and (2)(f)(iii)(A)(X) that was removed from the rule.
  - In WAC 296-46B-920(2)(f)(iii)(B)(I), removed the exception referring to WAC 296-46B-920(2)(f)(iii)(A)(IX) that was removed from the rule.
  - In WAC 296-46B-920(2)(f)(iii)(B)(II), removed the exception referring to WAC 296-46B-920(2)(f)(iii)(A)(IX) and (X) that were removed from the rule.

If a preliminary cost-benefit analysis was prepared under RCW 34.05.328, a final cost-benefit analysis is available by contacting:

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Other:

**Note: If any category is left blank, it will be calculated as zero.  
No descriptive text.**

**Count by whole WAC sections only, from the WAC number through the history note.  
A section may be counted in more than one category.**

**The number of sections adopted in order to comply with:**

Federal statute:	New	___	Amended	___	Repealed	___
Federal rules or standards:	New	___	Amended	___	Repealed	___
Recently enacted state statutes:	New	___	Amended	___	Repealed	___

**The number of sections adopted at the request of a nongovernmental entity:**

New	___	Amended	___	Repealed	___
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**The number of sections adopted on the agency's own initiative:**

New	<u>3</u>	Amended	<u>43</u>	Repealed	<u>2</u>
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**The number of sections adopted in order to clarify, streamline, or reform agency procedures:**

New	___	Amended	___	Repealed	___
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**The number of sections adopted using:**

Negotiated rule making:	New	___	Amended	___	Repealed	___
Pilot rule making:	New	___	Amended	___	Repealed	___
Other alternative rule making:	New	<u>3</u>	Amended	<u>43</u>	Repealed	<u>2</u>

**Date Adopted:** February 21, 2024

**Name:** Joel Sacks

**Title:** Director

**Signature:**

