

# ELECTRICAL CURRENTS

A Newsletter from the Office of L&I Chief Electrical Inspector Wayne Molesworth

January 2023

## Question of the Month:

The nameplate on an electric furnace is required to be marked with the minimum supply circuit conductor ampacity and the maximum rating of the branch-circuit short-circuit and ground-fault protective device.

Question: What are the most correct code references requiring branch-circuit conductors, and overcurrent protective devices for this equipment to be as stated on the nameplate? Hint – It is not National Electrical Code® (NEC®) 110.3(B). See correct answer on page 2.

## Safety Tip of the Month

Never leave energized conductors or equipment parts exposed. A missing cover on an energized electrical panel on a construction site can lead to tragedy. According to recent OSHA statistics, electrocution is the third leading cause of worker fatalities. Do not allow a serious unsafe condition such as exposed electrical wiring to ruin yours or someone else's life on your jobsite.

## Preparing for When Registered Apprenticeship is a Requirement for Trainees to Become 01s

**Trainees**, report your hours of experience prior to registering in an apprenticeship program. You are encouraged to stay informed about the good cause rulemaking for WAC [296-46B-945](#) as you might have alternative options to qualify for the 01 exam until July 1, 2025.

**Contractors**, to assist your trainees in complying with the new law effective July 1, 2023, you are encouraged to become a registered training agent or sponsor your own registered apprenticeship program. By doing so, you will be able to employ apprentices learning the 01 occupation after July 1, 2023.

Learn more: [www.lni.wa.gov/ElectricalTrainee](http://www.lni.wa.gov/ElectricalTrainee) and [www.lni.wa.gov/ElectricalApprenticeship](http://www.lni.wa.gov/ElectricalApprenticeship)

## Thank You for Using Online Services!

### Last Quarter results:

#### Online permit sales:

99.8% of all contractor permits  
83.5% of property owner permits  
98.7% of all permits

#### Online inspection requests:

80.4% of all contractor requests  
40.9% of all property owner requests  
76.6% of all requests

#### Online certificates and licenses:

93.6% of all new training certificate applications  
91.8% of all renewals are completed through:  
[www.lni.wa.gov/ManageLicensesCertifications](http://www.lni.wa.gov/ManageLicensesCertifications)

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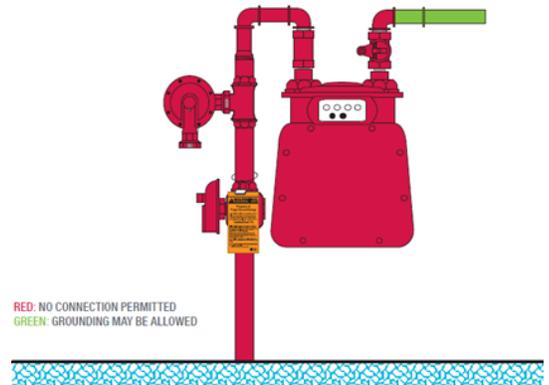


## Natural Gas Meter? Double-Check Your Bonding!

If it is metal, bond it? Not always. NEC 250.53(B) prohibits the use of underground metal natural gas piping as a grounding electrode. To bond metal gas piping according to NEC 250.104 and WAC 296-46B-250, the connection must be on the customer side of the meter, never on the supply side of the meter.

Why? Hubs on natural gas meters are fitted with insulating bushings that isolate building piping from underground natural gas piping that is protected by the utility's corrosion control system (cathodic protection).

Bonding on the wrong side of the meter does not bond the interior piping and can lead to a gas leak, injury or a structure fire. Avoid return trips, always bond on the customer side of a natural gas meter!



## Wear Your Certification Card With Pride

The requirement for wearing and visibly displaying your original, valid certificate while engaged in the electrical construction trade went into effect on March 2013. Visibly displaying certification allows the public, customers, and other workers to know that properly certified persons are performing electrical work. The requirement provides a deterrent for contractors who knowingly work trainees unsupervised and will help fight the underground economy and level the playing field for those who comply with the law.

Starting July 1, 2023, in addition to displaying their training certificates, apprentices learning the 01 journey level trade must have proof of registration in Washington approved apprenticeship program or equivalent out of state program on their person while performing electrical work.

## Answer to the Question of the Month:

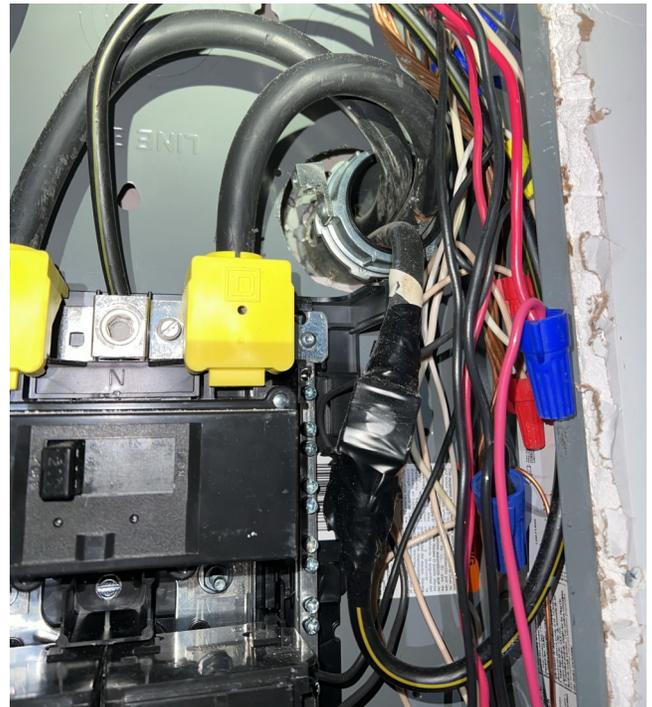
NEC® 422.10(A), and 422.11(A). The more specific requirements of Article 422 apply to an electric furnace, which meets the definition of an appliance in NEC® Article 100.

## Picture of the Month:

There is a lot going on in this picture. This homeowner replaced his service panel to add some needed capacity.

There are a number of questions including complete raceways, bonding of metal conduits and sealing of raceways.

Can you find anything else. Stay tuned for part 2 of this installation.



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