Question of the Month – According to 2015 NFPA 70E Standard for Electrical Safety in the Workplace, what are the 4 conditions where work on energized electrical conductors and circuit parts is permitted? See correct answer on Page 2.

2017 NEC® and WAC 296-46B to be Effective July 1, 2017

The WAC 296-46B revision process with adoption of the 2017 National Electrical Code (NEC®) is complete. The director signed the CR-103 rulemaking order on May 30, 2017. The 2017 NEC and revised WAC 296-46B will be effective July 1, 2017. All installations where permits are purchased on or after July 1 must comply with the 2017 NEC® and revised rules. There were three revisions made after the public comment period which are explained in the article below in this edition. You can review a copy of the revised rules on the Rule Development page of our website. Soon, a special edition Electrical Currents newsletter will be published which will highlight the significant changes. We are also working to revise the print version of the rules, which should be available on our Laws & Rules page shortly and in service locations in July.

If you have not done so, now is a great time to take advantage of a 2017 NEC® update class. You can find approved continuing education and basic classroom training classes on the Educational Requirements page of our website.

Washington Amends Three 2017 NEC® Requirements in WAC 296-46B

Based on further research prompted by public comments, the department has adopted the following amendments to three requirements in the 2017 NEC®. These are included in the revised WAC 296-46B to be effective July 1, 2017.

- WAC 296-46B-210 008(B) Other than dwelling units – GFCI requirements
  GFCI protection for personnel will not be required for three-phase receptacles unless specifically required elsewhere in the NEC®. This is due to lack of availability of equipment to provide GFCI protection for three-phase loads.

- WAC 296-46B-553.4 Floating Buildings, and 555.3 Marinas, Boatyards, and Commercial and Noncommercial Docking Facilities – Comments were received in opposition to adoption of the 2017 NEC® requirement for 30 mA ground-fault protection for all overcurrent devices supplying these facilities due to reports that the 30 mA protection level for feeders will not accommodate the cumulative leakage current present at most marinas. The department believes further consideration is warranted and is proposing a one-year period to allow further public input and consideration of this requirement. A sentence was added to these two sections of WAC 296-46B stating: Until July 1, 2018, the ground-fault protection level specified in (WAC 296-46B-553.4 and 2017 NEC® 555.3) is amended to allow a maximum of: 100 mA for overcurrent devices supplying feeder conductors; and 30 mA for overcurrent devices supplying branch circuit conductors and outlets. Unless permanent rulemaking amends these changes, effective July 1, 2018, all overcurrent protective devices supplying floating buildings, marinas, boatyards, and commercial and noncommercial docking facilities must have ground-fault protection not exceeding 30 mA as specified in the 2017 NEC. This is an important safety requirement to help prevent electric shock drownings at these facilities, which was discussed in the April 2016 Electrical Currents newsletter.

Safety Tip of the Month
Do not allow yourself or anyone else to swim near a dock or marina where electrical power is present. Stray leakage current in the water can paralyze or kill.

If you must enter the water to work on a boat or dock, turn off and lock out all sources of electricity first.
NFPA Issues 2017 National Electrical Code® Corrections and Revisions
The NEC® is a complex document with thousands of people working together to bring it to publication every three years. Sometimes there are errors and omissions that need correction after publication. The NFPA addresses this by issuing errata and tentative interim amendments (TIAs). A TIA is an amendment to the standard after publication to correct an error or adopt an emergency revision. In addition to TIAs, NFPA publishes Errata, which correct errors in the standard after publication. To date, in the 2017 NEC® there have been four TIAs and four errata issued. To see current TIAs and Errata, visit the Current and Prior Editions tab of the NFPA 70 (NEC®) web page, and then mark your copy of the 2017 NEC® to reflect the changes.

Submit Your Proposals for the 2020 NEC® Now
If you have a proposal that you believe would improve the NEC®, you may submit a public input to NFPA for consideration for the 2020 edition. The public input period is open until September 7, 2017, so you will need to move quickly. NFPA starts the revision process for the next edition of the NEC® almost immediately upon publication of the previous edition. To submit a public input, visit the Next Edition tab of the NEC® web page. Select “Submit a Public Input” and you will be taken to a page where you can sign in or create a profile. It is free and open to the public. The page also includes a schedule of significant dates for revision of the 2020 NEC®.

Wiring Requirements For Modular Office Furnishings Or Relocatable Wired Partitions
When manufactured office partitions contain an electrical distribution system (including switches, receptacles, flexible cable assemblies with quick-connect electrical interconnections, or any branch circuit conductors connected to the premises wiring), all work on the electrical devices and conductors must be done by properly certified electricians and licensed electrical contractors. Uncertified individuals may assemble the panels, work surfaces, cabinets, shelves, and structural elements of the partitions, but may not perform any electrical work. Owners and their regularly employed staff may work without being certified electricians, in accordance with RCW 19.28.261(5)(a), but they should be qualified to work on electrical systems. Except for some limited device replacement – see WAC 296-46B-901(7)(b)(i) for a list of permit exempt work – the work will generally require an electrical permit and inspection. The permit must be obtained prior to beginning any electrical work. Permit fees are generally based upon the addition or alteration of commercial branch circuits described in WAC 296-46B-906(2)(c). Specific requirements are mentioned in NEC® Article 605 – Office Furnishings, regarding electrical equipment, lighting accessories, and wiring systems used to connect, contained within, or installed on office furnishings.

Answer to Question of the Month: 2015 NFPA 70E 130.2(A)(1) through (A)(4):
1. Where the employer can demonstrate that de-energizing introduces additional hazards or increased risk.
2. Where the employer can demonstrate that the task to be performed is infeasible in a de-energized state due to equipment design or operational limitations.
3. Work on parts that operate at less than 50 volts where it is determined that there will be no increased exposure to electrical burns or to explosion due to electric arcs.
4. Normal operation of electric equipment shall be permitted under the specified conditions of use.

Ugly Picture: If viewing this document online, click on the picture to open a larger image. NEC® 240.24(A) and 404.8(A) require that all switches, and switches containing fuses and circuit breakers be readily accessible and installed so that the center of the grip of the operating handle of the switch or circuit breaker is not more than 6 ft. 7 in. above the floor or working platform. Don’t be like this contractor whose profit margin was eaten up by removing and lowering the panel.