



Electrical code issues and answers.

● **WAC Rule Process: WAC 296-46 and WAC 296-401A**

Revisions to WAC 296-46 and WAC 296-401A are underway with the public comment and hearing stage following. Official notification should be announced near the end of August. Monitor the Electrical Program website (www.wa.gov/lni/electrical) for the proposed language and public hearing dates. Public hearings will be held in Olympia, Everett, Yakima, and Spokane. The revised rules should become effective in December.

The rule making process was heavily stakeholdered by a diverse group of the electrical industry consisting of electricians, contractors, labor representatives, industry associations, and local jurisdictions. Five stakeholder groups designated as technical, telecommunications, HVAC/R, traffic management, and low voltage, with approximately fifteen members each, spent many days meeting during the development of the rule changes. A core group made up of representatives from each of the five stakeholder groups reviewed all of the changes. The members of the stakeholder groups were heavily involved in the actual drafting of the rule revisions. The department sends thanks to all involved in this process.

● **Required Burial Depth for Co-axial and Other Telecom Cables?**

Communication cables including fiber optical and co-axial have relatively low voltage and volt/ampere (va) levels; but many communication conductors, including co-axial, function as life safety systems. Telecommunication cables often communicate emergency conditions to monitoring services. Compromise of these systems could place lives and property at risk. The National Electrical Code (NEC) requires all direct burial cables or conductors be covered with 24 inches of clean backfill unless specified conditions exist as provided in NEC Table 300-5 column 1. Conductors installed in conduit must be covered per the requirements of Table 300-5 columns 2 through 5. NEC burial depth requirements must be adhered to for proper and safe installations.

● **When Does a Manufactured Structure Require FAS Labeling?**

There are two criteria for determining requirement for Factory Assembled Structures (FAS) labeling on manufactured structures. FAS inspection is required when:

1. The structure has a door through which a person may pass **and...**
2. When any portion of the structure is **not accessible for inspection by removable wall, floor and ceiling panels.**

“**Accessible**” means panels may be removable by a means (such as screws, not nails) that will not affect the integrity of the structure and access to inspection is not obstructed by fixed equipment or installations.

● Contractors: Check your Employees' Certification.

To help avoid license and certification citations, contractors should check their employees' certification cards. Expired certificates of competency and trainee certification cards account for a large percentage of citations issued to employers and employees. In order to avoid costly citations, re-testing and late fees associated with expired certificates of competency and trainee cards, contractors should regularly check all employees' certification status.

● Field Evaluation and Listing of Electrical Products

Field Evaluations:

- An electrical product field evaluation is the process where an electrical testing laboratory evaluates a specific piece of electrical equipment to recognized standards. Approval to perform field evaluations for equipment to be installed anywhere in the state must be granted by the Department's Chief Electrical Inspector.
- Field evaluation is restricted to a single piece of equipment.
- Normally, field evaluations are conducted in the field. However, preliminary field investigation may be performed in factories.
- Unless the Chief Electrical Inspector grants a waiver, the field evaluation mark may not be applied until the equipment is installed in the field and a final field investigation is completed. If a product is delivered to the site with a field evaluation mark applied, you should inform the electrical inspector so verification may be made that the mark was properly applied and the field evaluation was acceptable.
- A final field evaluation acceptance report will be sent to the Department, local electrical inspection supervisor, and the end user.

Listed Products:

- Listed products undergo extensive tests to determine safety and performance levels.
- Many tests necessary for listing approval may only be performed under laboratory conditions with laboratory equipment. Often laboratory testing involves destructive testing of a prototype product to determine its ability to withstand electrical dynamics and physical forces. If testing shows the product does not meet acceptable standards, the manufacturer must improve the product and the testing must be repeated until the product meets the appropriate standards.
- After the product is accepted, the testing laboratory issues a final report and authorizes the manufacturer to apply a listing mark to the product at the factory.
- The testing laboratory performs follow-up visits to the factory each year to verify the manufacturer maintains the approved product specifications.