



## Installation of Electrical Equipment

The City of Grand Prairie has adopted the 2020 National Electrical Code as mandated by the State of Texas that regulates the safe installations of electrical systems and equipment.

The following is an excerpt from the 2020 NEC, Article 90.7 (NFPA 70)

- *“It is the intent of this Code that factory-installed internal wiring or the construction of equipment need not be inspected at time of installation of the equipment, except to detect alterations or damage, if the equipment has been listed by a qualified electrical testing laboratory that is recognized as having the facilities described in the preceding paragraph and that requires suitability for installation in accordance with this Code.*

### **Explanation:**

- Due to the specialized nature of testing that would be needed to evaluate and approve such equipment, the field inspector has typically, required the listing and/or evaluation by a qualified electrical testing laboratory to comply with the above section and Articles 110.2, 110.3 and other associated sections such as Article 409.110 and 670 respectively.
- To be consistent with the industry, historically, the city (AHJ) has looked to OSHA to define who is “a qualified electrical testing laboratory”. These agencies are considered Nationally Recognized Testing Laboratories (NRTL).
- Can the “CE” Mark/Label be accepted?
  - The “CE” Mark/Label is a European self-certification requirement and is a generic mark used in the European Union (EU) to indicate that the manufacturer has declared that the product meets safety requirements. This mark is not recognized by OSHA. The difference is Self-Declaration vs 3<sup>rd</sup> party evaluation.

### **(City Code of Ordinances) Sec. 7-65. - Unlawful to connect unlisted electrical equipment.**

It shall be unlawful for any person to use or install any electrical apparatus, material, appliance, or fixture for use in connection with wiring of any kind unless such apparatus, material, appliance, or fixture has been tested, listed, and labeled by an approved testing laboratory acceptable to the chief electrical inspector. (Ord. No. 6977, § 6, 2-3-04)

### **Options for Evaluation and Acceptance:**

- Tested and listed in accordance with a Nationally Recognized Testing Laboratory as recognized by OSHA
- In recent years, in addition to NRTL evaluation agencies, it has also been acceptable for a “Field Evaluation Body” (FEB) as accredited by the International Accreditation Service (IAS) and developed by the American Council for Electrical Safety to conduct equipment evaluations.
- NFPA New Standards for compliance:
  - NFPA 790 – Standard for Competency of Third-Party Field Evaluation Bodies
    - This Standard specifically states, “A field evaluation body is not permitted to have any conflicts of interests, such as being owned by or under the control of manufacturers, suppliers or installers of equipment that it is evaluating.”
  - NFPA 791 – Recommended Practice and Procedures for Unlabeled Electrical Equipment Evaluation