



OSHA heavily regulates electrical safety in hazardous locations, requiring equipment to be tested and certified by a Nationally Recognized Testing Laboratory (NRTL). Manufacturers and Companies can also self-certify custom equipment if they provide OSHA required safety data. OSHA enforces compliance with its standards (i.e. 29 CFR 1910.307 for hazardous locations) and can inspect installations for safety, even if locally approved by authorities.

### **OSHA's Stance on Hazardous Location Certification:**

- **NRTL Requirement:** OSHA mandates that most electrical equipment used in workplaces, including hazardous locations, must be approved / listed by a NRTL (e.g. UL, SGS, Intertek, FM, etc.).
- **Manufacturer and/or Company Self-Certification:** On a limited basis manufacturers can exercise engineering judgement to self-certify custom-made equipment, but they must provide test data and sufficient documentation proving safety to OSHA inspectors upon request.
- **No Endorsement:** OSHA itself does not test or certify products; it relies on NRTLs and manufacturer / company compliance with its standards.

### **How It Works in Practice:**

- **Federal Standards:** OSHA sets the baseline with 29 CFR 1910 Subpart S (Electrical) and 1910.307 (Hazardous Locations).
- **NRTLs:** Independent labs perform the actual testing and certification for most equipment.
- **Local Authorities Having Jurisdiction (AHJ):** Local electrical inspectors enforce building codes (often based on the NEC) and may have additional requirements or defer to NRTLs, creating a patchwork of local rules.
- **Employer Responsibility:** The employer is ultimately responsible for ensuring a safe workplace, which includes using compliant equipment and being prepared to show data if they claim self-certification.

#### **Disclaimer:**

*This document is for informational purposes only and does not constitute professional engineering, legal, or safety advice. Electrical safety standards and local codes are subject to change and interpretation by the Authority Having Jurisdiction (AHJ). Users should consult with a qualified professional and refer to the official OSHA and NFPA 70 (NEC) / NFPA 70E standards before making equipment or installation decisions.*



**In Summary:** If a manufacturer or company claims "self-certification" for electrical equipment in hazardous areas, OSHA still expects that equipment to meet federal standards, potentially through an NRTL or robust manufacturer data, and will enforce safety regulations during inspections.

## **References**

### **OSHA CFR 29 Subpart S**

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910SubpartS>

### **OSHA CFR 29 1910.307**

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.307>

### **OSHA Recognized Testing Laboratory Program for NRTL's**

<https://www.osha.gov/nationally-recognized-testing-laboratory-program>

### **OSHA CFR 29 1910.7 - Definition and Requirements for a Nationally Recognized Testing Laboratory.**

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.7>

### **National Electric Code (NEC), NFPA 70 / 70E – Source Manual**

<https://www.nfpa.org/codes-and-standards/7/0/nfpa-70>

The National Electrical Code (NEC), or NFPA 70 / 70E, is the benchmark for safe electrical design, installation, and inspection, providing minimum requirements to protect people and property from electrical hazards like shock and fire, mandated in all U.S. states and published by the NFPA every three years. It's a comprehensive, consensus-based standard covering wiring, equipment, installations in various settings, training, etc. Though not a law itself, it's often adopted by state and local governments.

### **NFPA.org**

<https://www.nfpa.org>

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