

Analysis Adopted by the Oregon Electrical and Elevator Board: Installation of conduit as electrical installation

2012

Statute and Rule: ORS 479.530 (10) and (11)

Date: June 4, 2012

Subject: Electrical conduit as electrical installation

Question: Is the act of installing electrical conduit in a trench an electrical installation requiring an electrical license?

Answer: Yes. Installing electrical conduit in a trench is an electrical installation requiring a license and permit.

Analysis: An electrical license is required to make an electrical installation. ORS 479.530 defines an electrical installation, in part, as:

“the construction or installation of electrical wiring and the permanent attachment or installation of electrical products in or on any structure that is not itself an electrical product.”

An electrical product is:

“any electrical equipment, material, device or apparatus that, except as provided in ORS 479.540, requires a license or permit to install and either conveys or is operated by electrical current.”

Reference to the National Electrical Code (NEC) adopted by the State, adds clarity to the statutory definition of “Electrical Installation” and “Electrical Product.” The NEC specifically covers the installation of electrical conductors, equipment, and raceways in yards and parking lots, etc. NEC 90.2. “Equipment” is defined to include “materials, fittings, devices, appliances, luminaires, apparatus, machinery, and the like used as part of or in connection with, an electrical installation.” NEC Article 100. A “raceway” is “an enclosed channel of metal or non-metallic materials designed expressly for holding wires, cables...” NEC Article 100. Interconnected elements of an electrical installation cannot be considered piecemeal; an electrical installation occurs with the installation of a listed electrical product, particularly when the electrical product is intended to contain electrical wiring. Conduit for the purpose of protecting wiring is an integral part of an electrical installation.

NEC Article 300.5 specifies listed conduit, specific maximum angles of bend and treatment of conduit in assembly and placement. Voltage type and proper burial are correlated through the code to ensure a proper installation. Proper assembly and placement of conduit are vital to the overall integrity of an electrical system. Both metallic and non-metallic conduit installed as part of an electrical installation are inseparable elements of the installation. When conduit is not properly assembled as required under the NEC, the electrical conductors could be damaged during installation, creating an electrical hazard. Where electrical conduit is listed by a national testing laboratory for use as an electrical product and used as a part of an electrical installation it is an electrical product requiring proper installation under the NEC and the State of Oregon’s licensing laws.