

Article 500 Overview

A hazardous (classified) location is an area where the possibility of fire or explosion can be created by the presence of flammable gases or vapors, combustible dusts, or ignitable fibers/flyings. Electric arcs, sparks, and/or heated surfaces can serve as a source of ignition in such environments.

Article 500 provides a foundation for applying Article 501 (Class I Locations), Article 502 (Class II Locations), Article 503 (Class III Locations), and Article 504 (Intrinsically Safe Systems)—all of which immediately follow Article 500. This article also provides a foundation for applying Articles 510 through 516.

Before you apply any of the articles just mentioned, you must understand and apply Article 500.

You will notice when studying Article 500 that there are many Fine Print Notes. Although these are not *NEC* requirements [90.5(C)], you will find a lot of information that should help you understand related *Code* sections.

Article 500 Questions

- _____ equipment excludes dust and doesn't permit arcs, sparks, or heat inside the enclosure to ignite accumulations or atmospheric suspensions of a specified dust on or in the vicinity outside of the enclosure.
 - Dust-ignitionproof
 - Dusttight
 - a or b
 - a and
- _____ enclosures are constructed so that dust will not enter under specific test conditions.
 - Dust-ignitionproof
 - Dusttight
 - a or b
 - a and
- Portable or transportable equipment with a self-contained power supply, such as battery-operated equipment, could potentially become an ignition source in hazardous (classified) locations.
 - True
 - False
- Except as modified in Articles 500 through 504, all installation requirements contained in _____ of the *NEC* apply to electrical equipment and wiring installed in hazardous (classified) locations.
 - Chapter 1 and 2
 - Chapter 3 and 4
 - a or b
 - a and b
- Hazardous (classified) locations shall be classified depending on the properties of the _____ that may be present, and the likelihood that a flammable or combustible concentration or quantity is present.
 - flammable liquid produced vapors
 - flammable gases
 - combustible dusts
 - all of these
- Areas designated as hazardous (classified) shall be properly _____ and shall be available to those authorized to design, install, inspect, maintain, or operate electrical equipment at these locations.
 - cleaned
 - documented
 - maintained
 - all of these
- It is frequently possible to locate much of the equipment in less hazardous or unclassified locations and thus reduce the amount of special equipment required.
 - True
 - False