



015: Class II and Class III Precautions

Definition of Class II and Class III

While Class I locations contain combustible gases, Class II locations contain combustible dust. Class III locations contain ignitable fibers.

A location is Class II if

- Enough combustible dust may be present in the air to create ignition.
- Ignitable concentrations of combustible dust exist under normal operating conditions.
- The breakdown or faulty operation of equipment or processes might release ignitable concentrations of combustible dust.
- Any of several other conditions, listed in the NEC Article 500.5, apply.

Hazard prevention

Prior to starting work in a Class II environment, you need to review NEC Article 502. Be sure to discuss any questions you have with your foreman—do not assume.

Prior to starting work in a Class III environment, you need to review NEC Article 503. Be sure to discuss any questions you have with your foreman—do not assume.

Absolutely no smoking in a Class II or Class III location. If you are a smoker, go to a designated smoking location. Standing just beyond the edge of a Class II or Class III location is not sufficient.

Do not bring welding equipment into a Class II or Class III location without a welding permit that specifically addresses the hazards of that location.

Ensure motors, receptacles, luminaires, and communications equipment are rated for Class II or Class III locations, as appropriate. If in doubt, contact the supplier after reviewing the requirements in NEC Article 502 or 503 as appropriate.

Check any arcing devices you will install, to ensure they are approved for Class II or Class III use, as appropriate. Such devices include breakers, switches, motor controllers, and fuses. If in doubt, contact the supplier after reviewing the requirements in NEC Article 502 or 503 as appropriate.

Ensure instrumentation and controls are either in their own Class II or Class III housings or are mounted in Class II or Class III enclosures, as appropriate.

Apply seals as required per NEC Article 502 or 503, as appropriate.

Ensure all non-current carrying metal parts are bonded to ground. Where you have locknuts or bushings, install bonding jumpers. You cannot use a locknut or bushing as part of the grounding path.

Discussion leader duties for this session:

Read through NEC Article 500, NEC Article 502, NEC Article 503, and your company Class II working procedures so you can answer questions in the discussion portion.

What this Safety Talk covers:

What Class II and Class III locations are, and some of the necessary precautions.

Discussion notes :

