



069: Pre-Job Planning for Hazardous Locations

National Electrical Code

The NEC covers hazardous locations in Articles 500, 501, 502, and 503.

- Article 500 defines hazardous locations and gives a good overview.
- Article 501 addresses Class I requirements.
- Article 502 addresses Class II requirements.
- Article 503 addresses Class III requirements.

Articles 504, 505, and 510 give more detailed information on installation requirements.

Planning steps

Determine the hazardous Class that you'll be working on. Read the appropriate NEC Article or Articles for that Class. Keep in mind that a given installation or task may require work in all three Classes plus unclassified areas. Be sure to discuss any questions you have with your foreman—do not assume.

Ensure all materials for the job are listed or rated for use in the hazardous Class in which you will be using or installing them. This includes breakers, switches, motors, motor controllers, fuses, receptacles, fittings, and boxes.

Review the MSDS for hazardous materials in the hazardous location and understand the handling and disposal rules for those materials.

Review the MSDS for materials you will bring into the hazardous location, and understand the handling and disposal rules for those materials.

Understand the requirements for ignition source control, ventilation, and hazardous material monitoring.

Plan your communication system so it is compatible with the ignition control requirements of the location. For example, you may not be able to use a radio in a Class I location.

Locate the fire alarms, fire exits, fire extinguishers, and emergency showers.

Designate someone outside the hazardous area as your contact should anything go wrong. Ensure this person has constant and reliable communication with you.

Always coordinate with the operators. You may have windows of time that are more hazardous or less hazardous than normal.

Find out what the login and log-out procedures are for each particular hazardous area you will be working in.

Obtain any needed welding permits ahead of time.

Obtain any needed seal-off kits, gaskets, and sealants so you can close junction boxes, sealed fittings, and other access points properly.

Tools and supplies

Ensure tools and supplies—even flashlights—are suitable for the hazardous location you'll be working in. Know which tools you can and cannot use before starting the job. In some locations, you may need to use special tools to avoid spark.

Discussion leader duties for this session:

Read the company policy, guidelines, or other documentation on hazardous locations.

What this Safety Talk covers:

Pre-job planning to reduce the dangers of working in hazardous locations.

Discussion notes :

