



Discussion leader duties for this session:

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

What this Safety Talk covers:

What hazardous locations are, and the cautions you should take.

Discussion notes :

040: Hazardous Locations

Three classes

The hazardous class of a location depends on the ignition hazards present:

- Class I: Flammable vapors or gases
- Class II: Combustible gases
- Class III: Ignitable fibers

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.

Articles 501, 502, and 503 give requirements for Class I, Class II, and Class III, respectively.

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

Pre-job planning

Plan the job carefully. Part of a system may reside in an unclassified location, while another part may reside in Class I and yet another in Class III.

Review the MSDS for hazardous materials in 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.

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. An example is the hydrogen cooling mechanism on a turbine—brass wrenches replace steel ones in that location.

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

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

Work rules

Prior to starting work in a hazardous environment, you need to review NEC Article 500 and any of Articles 501 through 510 that apply to that location. Be sure to discuss any questions you have with your foreman—do not assume.

Follow login procedures and always inform the operator on duty that you are entering an area classified as hazardous, even if there is no login procedure.

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

Do not bring welding equipment into a hazardous location without a welding per-

