

BONDING AND GROUNDING

ALLIANZ RISK CONSULTING

You may encounter many obvious exposures in a manufacturing facility. Operations may include use of hazardous chemicals and/or flammable liquids that may have known hazards. One not so apparent risk involves static electricity that may be created because of some operations.

WHAT IS STATIC ELECTRICITY?

Static electricity is defined as an imbalance of electrical charges within or on the surface of a material. This charge may remain until it is able to move away by an electric current or discharge. Static electricity may occur in a manufacturing environment during the following operations:

- Gases or liquids moving through pipes
- Spraying or coating
- Blending and mixing
- Dry powders moving through chutes/conveyors
- Filling containers

The familiar occurrence of a static shock is caused by the neutralization of charge. We can sometimes see the electrical arc as the charge moves toward neutral, and these arcs can reach temperatures exceeding 15,000 degrees Fahrenheit. At this temperature, an electrical arc caused by static electricity could generate enough heat to ignite flammable vapors.

Design: [Graphic Design Centre](#)

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