

# Safety Toolbox Talks

## STATIC ELECTRICITY HAZARDS DURING FUEL TRANSFER

**Chuck Hintz**

Static electricity buildup creates a fire safety hazard that is important for you to understand. Many industrial operations utilize substantial quantities of flammable liquids to operate company vehicles, power equipment, tools, etc. Consider for a minute the hazards associated with the storage and transfer of these flammable liquids, and the potential for fire caused by the discharge of stored static electricity.

In simple terms static electricity is defined as an imbalance of negatively and positively charged particles. In order to reduce this hazard at your workplace, remember and understand the terms “Bonding & Grounding.” This safe guard will prevent the potential for static discharge to occur during fuel transferring activity.

Bonding and Grounding provides a path for electrical buildups to be dissipated into the ground, as opposed to being discharged during the refueling of a company vehicle. Primary flammable liquid storage containers such as 55-gallon drums and above ground fuel tanks have the capability to store large amounts of static electricity. They can store substantially more than would be required to produce disastrous results. Bonding & Grounding is the preferred choice of prevention.

There are several steps to remember:

### **First**

Flammable liquid containers, or the racks on which they are stored, should be adequately grounded, creating a non-resistive path for potential electrical buildup to be dissipated.

### **Second**

Containers stored side-by-side should be bonded together with simple “alligator clips” and copper wire.

### **Third**

When transferring flammable liquid into a secondary can or when refueling a vehicle from a container, an "alligator clip" connection should also be used between the two containers in order to create a bond.

By implementing proper bonding & grounding procedures, you can create a balanced electrical potential and eliminate the hazard for an explosion or fire from static electricity.

Static electricity is "an accumulation of electric charge on an insulated body." Don't set it free to disperse and create havoc in the presence of flammable and combustible fuels.



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## BRIESER CONSTRUCTION SAFETY MEETING

Week of: \_\_\_\_\_

Job Number: \_\_\_\_\_

Date: \_\_\_\_\_

Job Name: \_\_\_\_\_

Superintendent: \_\_\_\_\_

Site Specific Topics:

\_\_\_\_\_  
\_\_\_\_\_

Crew Safety

Recommendations: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Reviewed MSDS #: \_\_\_\_\_ Subject: \_\_\_\_\_

Meeting Attended By: (Print your Name)


Supervisor/Foreman: \_\_\_\_\_

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