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Static Electricity Hazards and Propane

Helpful tips for reducing your risk of propane hazards

In a normal environment, static electricity is generally not a concern. But in an environment where propane and its vapour are present, static electricity can cause fires or explosions—the energy that a static spark gives off is twice the amount necessary to ignite propane.

Static electricity cannot be completely eliminated, but you can control it and safely discharge it in the presence of propane.

Static Discharge Control Areas

A static discharge control area is any area with a reasonable possibility of the presence of propane vapour. This includes filling docks, the areas around transfer hose connections and areas designated for purging, recovery and refurbishing of cylinders.

Static discharge control areas should be clearly identified to inform customers and remind employees of the risk of static discharge in the presence of propane.

Static Discharge Prevention

By understanding what static electricity is, where it comes from and how it behaves, you can effectively control and discharge it.

Here are some tips for preventing static discharge:

1. Know the area. Be aware of static discharge control areas, especially ones that are not clearly marked. Any area where the odour of propane is present should be considered a static discharge control area.
2. Ground yourself. People generate static charge by movement and can carry the charge a considerable distance before discharging. Wear static-safe footwear or temporary foot grounders so you safely discharge to a static-safe floor or floor mat before the charge levels become great enough to spark.
3. Wear proper attire. Cotton and cotton blends will generate less static electricity than most synthetic and polyester materials. Be aware of any garments or layers that snap or sound crackly when put on or removed—that cracking sound is static electricity. Never put on or remove garments if you're in a static discharge control area.
4. Clean up. Remove all plastics, high-density polyethylenes and other synthetic materials from static discharge control areas. Materials that are necessary for operation but can also become charged can be treated with anti-static coatings.

Be safe and healthy on the job at
with these helpful tips provided by **Jones DesLauriers Insurance Management Inc..**

"Static sparks do not need to be big in order to ignite propane—sparks too small to be seen or even felt can ignite propane."

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5. Follow regulations. Be sure your equipment is properly grounded. Any electrical equipment inside a static discharge control area should be installed in accordance with federal and provincial electrical codes and regulations. Metal, non-electrical stationary equipment should also be grounded.

6. Understand your processes. Most static electricity comes from the friction between materials. Processes that involve non-conductive materials will usually generate static electricity, so be sure you are not in a static discharge control area when performing these tasks.

7. Limit access. Limit access to static discharge control areas to only the people necessary to conduct normal business activities.

8. Listen and communicate. Be open with your co-workers and supervisors if you witness a static discharge event or find a static threat. Keeping everyone notified also keeps them safe.