Lesson Learned Statement:

When filling metal gas cans make certain the can is on the ground and the nozzle is in contact with the fill spout of the can. This equalizes the electrical energy being generated by the flowing gasoline, thus preventing a static spark.

Discussion:

Gasoline flowing into a can generates static electricity. If there is no ground path to dissipate the charge then as the charge builds, it can create a static spark between the can and the gas nozzle, causing the gasoline fumes to ignite.

Analysis:

The insulating effect of the plastic liners found in the beds of many pickup trucks prevents the static charge from discharging. Chevron USA and Ford Motor Corporation have issued warnings that gas cans must be placed on the ground before filling. The advice to place a rubber mat under the can is incorrect. The gas can must be grounded. (Bonding between the gas can and the nozzle is effective if the bond wire has proper connections and is properly applied.)

Gasoline cans should be placed on the ground well away from vehicles and other people before filling them. The fill nozzle should be held in contact with the can during filling to dissipate the static charge.

Recommended Actions:

When filling metal gas cans make certain the can is on the ground and the nozzle is in contact with the fill spout of the can. This equalizes the electrical energy being generated by the flowing gasoline, thus preventing a static spark.

REMEMBER, GASOLINE PRODUCES FLAMMABLE VAPORS TO -43 C (-45 F). IT IS ALWAYS DANGEROUS AND MUST BE CAREFULLY HANDLED AND STORED.

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References:


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DOE Function / Work Categories:

Fire Protection
Packaging & Transportation

ISM Category:

Develop / Implement Controls

Hazard:

Fire / Smoke / NFPA

End of Lesson!