

Safe Flying Tip number Twelve: Static Electricity and how it forms.

A pilot decided to make a fuel calibration stick for his plane. He would defuel one tank and then add fuel back one gallon at a time to calibrate his new stick.

He parked his car in front of his hangar. He gathered his five-gallon container, funnel, hose and new fuel stick.

He placed the five gallon can under the wing. He put his funnel with a hose connected to it into the can. The funnel was about six inches under the wing drain. He opened the drain and began to de-fuel his tank.

He was tidying up his hangar when he noticed a fire had started in the funnel. His fire extinguisher was behind the plane and now behind the fire. His car keys were on his work bench also behind the plane. He got out of the way and watched his plane; his hangar and five adjoining hangars and planes burn to the ground.

Descending rain from clouds creates static electricity that often becomes lightening. Descending fuel dropping into a can also creates static electricity. Descending fuel from the re-fueling hose going into the fuel tank also creates static electricity. You can minimize the amount of static electricity by holding the fuel nozzle against the side of the fuel tank opening vs letting the fuel free flow into the tank without letting the nozzle touch the side of the tank.

You can also now appreciate why all FBO's required the grounding static clip be attached to the aircraft during fuel. The static clip helps to dissipate static electricity.

Always place a five gallon can on the ground when filling it. If it is in your car it is not grounded and static electricity can build up and lead to a fire.