

Oil and Gas Industry **Safety Alert 001**

A production tank fire occurred at the Carris 1-14H-11 in Pittsburg County, OK. After interviewing the injured party and reviewing all evidence, it appears a static spark was created when a flowback operator attempted to open an aluminum thief hatch on a 300 bbl fiberglass tank. Natural Gas flowing into the top of the fiberglass tank caused the generation of static electricity. The flowback operator sustained second degree burns between the mid-forearm and mid-bicep area of his left arm. His mustache, eyelashes, eyebrows and sideburns were singed during the event.

Gas was actively blowing out the 2" gap when the flowback operator reached to fully open the lid.



Facts and Findings:

- Static electricity can be generated when high velocity/volume gas is flowed into a fiberglass tank.
- No gas buster system was utilized on the flowback operation.
- The contract flowback operator was exposed to large volumes of natural gas when he climbed the stairway and accessed the tank landing.
- During high line pressure events, high pressure natural gas could be routed back to a non-pressure rated fiberglass production tank creating a risk similar to the flowback operation.

Recommendations:

- Bond the thief hatches to the landing rails and the blow down line or water dump line.
- Train exposed employees on the need to ground themselves to the steel handrail prior to touching a potentially electro statically charged thief hatch.
- Conduct a risk assessment and decide whether or not flowing into non-pressure rated fiberglass production tanks is an acceptable risk.
- Train personnel to not gauge production tanks while gas is actively flowing into the tank.