

Personal Protective Equipment (PPE) Fatality File

Worker Killed in a Trench Fire

In 2012, a 26 year old laborer died while performing a maintenance task. He worked in the oil and gas industry. He was new to the job and had only been employed for two months. He died from injuries sustained during a flash fire event. The fire was caused by an ignition of crude oil vapors.

At the time of the incident, the employee was working with two other maintenance workers. They were trying to repair a leaking crude oil flow line. The line connected the production well to its tank battery.

In order to gain better access, they decided to dig a trench. They then cut out a section of pipe using a cold cutter. At first, they tried to thread the cut using a manual pipe threader machine, but the dies on the threader were dull.

So, they obtained new dies from the office to replace the dull ones. Instead of installing it on the manual threader, the employees installed it on a different, electric machine.

When the incident occurred, two employees were in the trench with the electric threading machine. Quite suddenly, the threader caused nearby flammable vapors to ignite. A flash fire engulfed the trench with flames while the two employees were still inside.

The third employee emptied two fire extinguishers just to extinguish the fire. Both of the victims were hospitalized with second- and third-degree burns. One died from his injuries while in the hospital.

Flame-resistant (FR) clothing could have made a difference in this case. The workers sustained burns to their arms, neck, and face. Simple coveralls could have minimized the extent of burns that

they received. Workers in the oil and gas industry are required to wear FR clothing when there is potential for a flash fire – including whenever maintenance tasks such as these are performed.