Natural Gas Explosion



A 35-year-old employee died from injuries sustained during a flammable gas explosion. Five employees were making routine repairs on a 2” polyethylene (PE) gas distribution main. The workers were replacing a section of a 2” PE line approximately 4’ long that included two tee fittings. During the time between removing the old section and installing the new pipe natural gas began entering the work space. It was most likely ignited by static discharge. Three employees were hospitalized, and the victim died nineteen days later.

The employer was cited for not having procedures developed, documented, and used for the control of potentially hazardous energy – in this case natural gas vapors. The gas flow had not been stopped and locked out to prevent the leakage of natural gas at the repair site.

The employer was also cited for not furnishing employees conditions of employment and a place of employment free from recognized hazards that are causing or likely to cause death or serious physical harm.

Final Word

Flammable and combustible vapors aren’t just a concern when liquids aren’t being stored, used or handled safely, i.e. the use of bonding and grounding to dissipate static electricity when transferring liquids from one container to another. Flammable vapors can be present in many different situations. Monitoring atmospheric conditions and training employees on the hazards and potential hazards of a job are important steps to take to prevent these types of incidents.

