



Accident Report

An accident during testing took the life of a well-qualified mechanic as reported in the SafetyLetter published by the Petroleum Equipment Institute.

PEI Safety Letter

A technician was performing a soap test on a gasoline product line that had been damaged and repaired. At the conclusion of the test, the technician removed the isolation device from the STP, which allowed the uncontrolled release of gasoline vapors and/or liquid into the air. The vapors ignited and engulfed the STP manhole and the technician in flames.

According to two independent fire investigations, static electric discharge was the most likely source of ignition. It was not clear why the isolation device was removed while the product line was still pressurized, even though a functional pressure gauge was connected and indicated pressure.

The technician experienced 3rd-degree burns over the upper portion of his body and suffered severely damaged airways. He died six days later. This accident could have been prevented by slowly releasing the pressure from the line into a metal safety can, prior to removing the isolation device.

The company has thoroughly reviewed all of the possible contributing factors leading to the fatality and has implemented the following corrective actions:

1. Modified tag-out process and distributed "Pressure Warning Tags" to identify hydraulic and pneumatic pressure on both ends of the line used during testing.
2. Modified the "Soap Testing" protocol that describes the method to purge fuel and release pressure from a line.
3. Implemented a procedure to designate a "lead employee" on jobs with multiple technicians and a "site foreman" on jobs with multiple contractors.
4. Implemented a procedure to conduct "tailgate" safety meetings at all jobs with multiple workers.
5. Revised the following sections of the company safety plan to heighten the awareness of potential accidents: Drilling & Excavation, Hot-work, Compressed Gases & Cryogenic Liquids, Flammable Liquids & Fire Prevention, And Electrical Safety & Grounding.
6. Implemented a "Near Miss" reporting program.
7. Implemented a policy to conduct monthly "Safety" teleconference calls with all technicians and

operations staff.

8. Communicated details of the accident and these corrective actions to all technicians and operations staff.

PEI encourages comments or recommended solutions for prevention of accidents reported in this newsletter. Send submissions to Petroleum Equipment Institute, P.O. Box 2380, Tulsa OK 74101-2380, 918-494-9696, (Fax) 918-491-9895. The methods of prevention described in the accidents reported in the SafetyLetter represent the opinions of the PEI members submitting reports. They are intended to serve as reminders to company employees in an efforts to reduce workplace accidents and do not represent the opinion of the association.

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