

Fatality Narrative

Foreman Performing Maintenance Work on Fuel Storage Tank Killed in Explosion*

Industry: Specialty trade contractor.

Occupation: Foreman.

Task: Preparing fuel tank for permit required confined space entry.

Type of Incident: Explosion.

Release Date: March 10, 2008.

Case No.: 07WA02101.

SHARP Report No.: 71-69-2008.

On March 28, 2007, a foreman died when a fuel tank exploded. The 60-year-old victim, a foreman, was an 18-year employee of a specialty trade contractor that installs linings and coatings for storage tanks. The contractor was hired by a bulk petroleum distributor to apply an epoxy coating to the inside of four 15,000 gallon above ground fuel (gasoline) storage tanks. Prior to the incident, two of the 20' x 11' tanks had been drained of fuel and their interiors, vented with a blower, abrasively blasted, cleaned, and coated with a two-part epoxy. A third tank was being prepared for a permit-required confined space entry by five workers, including the victim, a co-worker, a temporary help agency contracted worker, and two oil company employees. A worker placed an electric blower outside the tank near its base by an open hatch in order to ventilate the tank by sucking air out. The vents at the top of the tank were not opened to allow fresh air to circulate through the tank. The blower was not rated for use in areas where flammable gases or vapors may present. The victim approached the tank to move the blower to do air testing to determine whether it was safe for workers to enter the tank. When the victim moved the still operating blower, a flame shot into the tank where flammable vapors were ignited and an explosion occurred. The victim was killed and a co-worker and two oil company employees received extensive burn injuries. An investigation determined that the probable cause of the explosion was 1) the blower and its extension cord were not rated for use in flammable atmospheres and 2) there may have been a static discharge when the victim touched the plastic housing on the blower.



Requirements/Recommendations

(! Indicates items required by code)

- ! Employers are responsible for identifying and evaluating potential hazards in permit-required confined spaces.
- ! Do not use equipment which fails to meet the safety standard requirements for an area where there are volatile flammable liquids and vapors such as gasoline present.
- ! Train employees involved in permit-required confined space activities so that they will have the knowledge and skills necessary to safely perform their duties.

State Wide Statistics: This was the 16th out of 77 work-related fatalities in Washington State during 2007, and was the 3rd out of 16 construction-related fatalities.

**This bulletin was developed at the Washington State Department of Labor and Industries to alert employers and employees of a tragic loss of life of a worker in Washington State. The information in this notice is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or conclusions regarding the cause of the fatality.*

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