Worker and Rescuer Killed in Tank



A worker collapsed because of the lack of oxygen in a tuolene storage tank. A fireman who was trying to rescue him was killed when the tank exploded.

The incident occurred at a bulk petroleum storage facility. The tuolene tank needed to be drained and cleaned. The company's maintenance supervisor and a laborer drained the tank, leaving a small layer of sludge and tuolene at the bottom. They then prepared to enter the tank to clean it. The supervisor obtained a self-contained breathing apparatus (SCBA) from a local rental store and instructed the laborer in how to use it and the procedure they would follow. Because a ladder would not fit into the access hole at the top of the tank the supervisor tied a rope to the vent pipe on top of the tank and lowered the rope into the hole for the laborer to climb down on. The size of the opening would not permit the laborer to enter wearing the SCBA, so it was loosely strapped to his body so he could hold it over his head until he cleared the opening. After that he was supposed to put it on.

The laborer climbed into the tank before the foreman was ready with the SCBA. When the supervisor looked into the tank, he found the worker confused and unresponsive. He tried several times to get the worker to grasp the SCBA equipment he lowered into the tank. He then called for help.

A hazmat team from the local fire department arrived. The hole in the tank was too small for a firefighter to enter in rescue gear. So the firefighters decided to cut a hole in the side of the tank with a gasoline-powered disk saw. As the team was cutting, other firemen were spraying water on the tool and the tank to quench sparks. At some point in the cutting two of the firefighters doing the spraying were called away from the top of the tank. At the same time the exterior water spray was removed to put out a fire spreading on the ground. When the explosion occurred, no water was being sprayed on the saw or on the exterior or interior of the tank.

One fireman was killed instantly and several were injured. The man inside the tank was presumed to be dead at the time of the explosion.

A number of precautions were overlooked in this incident. The worker entering the tank was not trained in confined space entry, nor was he properly equipped for entering a hazardous atmosphere. Investigators issued a reminder that workers should be properly trained in a language they can understand – in this case Spanish.