Gasoline Vapors Contribute to Death

An environmental officer doing routine testing noticed the smell of gasoline coming from an underground sewage pumping station. Two days later an inspection was done, including a check of the nearby service station, but nothing unusual was found.

A month later, a sewage employee and his co-worker were assigned to clean up debris and to check on the pumping station at the same manhole. They discovered that the pumps were not working properly. Upon repairing and reinstalling the first pump, it was discovered that the second pump also needed work.

While the victim was in the process of reinstalling the other pump, he came back to the surface to say that he could smell gasoline. He then put on an old-style, inadequate respiratory protection mask and re-entered the sewer manhole. The face plate quickly fogged up so he returned to the surface to remove the mask, saying he couldn’t smell the gasoline anymore. Moments after he re-entered the sewer, he lost consciousness and fell into the water.

His co-worker was nearly overcome by the gasoline vapors in an unsuccessful attempt to rescue the victim. The co-worker ran to a nearby store to call for assistance, and then returned to the site. The responding firefighters wore breathing apparatus, but were still somewhat affected by the vapors. One of the firefighters became sleepy and had to be roused by shouting.

When he was finally pulled to safety, the victim and two rescuers were sent to the hospital. The firefighters recovered, but the victim died a few days later from medical complications of inhaling sewage water.

How could this unfortunate incident have been avoided?

- Confined space entry procedures, atmospheric testing and proper training are essential. The workers relied on their

noses to tell them the atmosphere was “safe.” The victim’s sense of smell had become dulled to the gasoline odor ? this is a common occurrence.

- Inadequate communication contributed to this tragedy. The environmental officer’s information was not passed on to the maintenance workers.
- The identification, availability and use of suitable respirators for the conditions could have helped prevent this fatality. The victim apparently used an out-of-date breathing mask with a long hose attached to it, thinking it would be enough. Obsolete equipment must be tagged and removed from service.