Lack Of Training About ‘Dead Air’ Leads To Fatality



A barge maintenance worker was found dead of asphyxiation in a compartment on the vessel.

The barge, used as a construction base camp, was being prepared for the upcoming construction season.

On the day of his death, he was assigned to clean the bolts used to secure hatch covers to the barge deck. He was last seen alive late in the afternoon, still cleaning the bolts. However, when the crew assembled for dinner about 45 minutes later, he was missing. Co-workers found his hardhat and wrenches next to an open hatch. Looking down from above, they could see him lying in the bottom of the hole.

Several other persons in succession entered the hole to try to assist him. The victim had no pulse and showed no signs of life. He was pronounced dead upon arrival at the hospital.

It is unknown why he entered the hole; perhaps it was to check for cracks which needed to be welded. It was also not known when the hatch cover had been removed. The practice had been to open the hatch covers prior to entry to let the hole “air out.” It was also not known why the victim entered the hole alone, because there was reportedly a “buddy system” to use for tank entries.

This incident could easily have turned into a multiple fatality because the other workers entered the hole without first checking the atmosphere – and there was good evidence to suspect an oxygen-deficient atmosphere. If the atmosphere was found unsafe to enter without protection, then emergency air packs should have been used. There were two such units on the site.

This worksite lacked training for confined space workers. Such training is of special importance in emergencies because of the strong temptation to rush to the aid of a fellow worker. Confined space entry procedures must be understood and strictly adhered to during routine work and during emergencies.

During investigation of this fatality, workers made a number of references to “dead air”, saying although it is toxic, it can be smelled so and this gives a warning. This is wrong. “Smell-testing” the atmosphere should never replace

proper gas testing techniques.

There is no way to know whether a strict confined space policy and training would have prevented the victim from entering the hole where he died. However, it is likely that he would have been more careful if there had been a formal policy requiring the tank to be tested for a safe atmosphere and other hazards first.