



SCP Tribune[®]

When “Safe” is not Safe

Solid, time-tested industry practice can keep us from missing important details when we’re in a hurry, or when the job is so routine it takes effort even to think about it. Like, turning on and checking your gas-test meter. It’s done every day forever without the slightest hiccup.

So in the sleepy morning earlier this month a Competent Person was deep into his standard routine, though his mind was in some other county.

Turn the meter on. Charged enough? Pump working OK? Oxygen, Combustible Gas, Carbon Monoxide and Hydrogen Sulfide cells all display? Photoionization too? Everything at “fresh-air” as usual? Great!



2 Meters Testing One “tank” With ~17% Oxygen:
Which One Has a Bad-Acting Cell? Which is Alarming?

TRAINING

Shipyard Competent Person

3-Day Initial

Jan 4-6 @ SSC
Jan 10-12 @ Alaska
Feb 1-3 @ SSC



1-Day Updates

Jan 5 @ SSC
Jan 11 @ Alaska
Jan 11 @ Fremont
Feb 2 @ SSC
Feb 8 @ Fremont

Fremont: Fishermen’s Terminal
SSC: Georgetown Campus Just off I-5: Corson Ave

OSHA 10 Maritime

10-hour training on 29 CFR 1915 or 1910 provides methods on recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces specific to the maritime.

Call 206-932-0206 for class schedule.

Now, feed the meter calibration gas.

Oxygen:18% Combustible Gas @ 50% L.E.L. Carbon Monoxide: 100ppm, and Hydrogen Sulfide around 25 ppm? All accounted for.

But, wait a second! That oxygen didn’t quite make it down to the cal gas’s 18%. As a matter of fact, it didn’t get below 20%! He better think about this a little...

Exhaling into the meter for 10 seconds or so, the SCP expected the usual field test of exhaled breath to level off around 17%. Not this time!. Still reading above 20%! Time for a closer look. (Continued)

When “Safe” is “Not Safe”

Took only about 10 minutes to get the bad-acting cell free of the circuit board. Since oxygen cells are known to have the shortest life, it wasn't a big surprise that the cell was 6 months beyond its warranty date. A new oxygen cell had that meter back in business within a few days.

This cell's behavior was so perverse and unique that later the Chemist wanted to check it out for himself. Sure enough. Not only did the cell read normally in fresh air; but also the cell continued giving safe readings (out of the alarm range) even when the air was bad. (Note photo of 2 meters testing same bad atmosphere: Which has the bad-acting cell?)

This rogue, 1-in-1000-oxygen cell was especially tricky because it maintained “SAFE” readings even as its chemicals were running out. It did not go to zero as it should have. And recall that those calibration steps which make most cells reliable don't work for oxygen: Oxygen cells either work as the meter is turned on, or they are replaced. Their response can't be adjusted. A tricky situation sorted out!

Lessons? Take our time; Honor our safety routines; And trust our curious attention to details. Well done, Competent Person!

Our Brother's Keeper



A bunker barge needed some internal repairs in a cargo tank. The tank in question (No. 2 stb'd) and surrounding tanks were cleaned and the Chemist certified them (and adjacent voids) “Safe for Limited Hot Work,” allowing repairs only to specific internal weld fractures near the longitudinal bulkhead common with No. 2P.

Although the tanks had all been cleaned, the Chemist wrote the other tanks and the surrounding voids “Not Safe for Hot Work” because there were no work items for them.

The Chemist, the Port Engineer and the licensed crew all realized the barge voids were also “Not Safe For Hot Work” for another reason: bulkheads common with the cargo tanks had been foam-insulated to prevent heat loss from the bunker fuel cargoes, which can only be pumped when hot.

10 days later another repair crew, noting that No. 2 Stb'd was “Safe for Hot Work,” welded a new pipe support to the tank floor. Their welding caused a thin layer of foam to smolder and catch fire in the void below. (Continued)



Note the Foam on the Overhead of This Double Bottom Void

Brother's Keeper, Cont.

The burning foam caused no structural damage, but the void had to be ventilated, checked and re-foamed. Fortunately, no injuries, and fire damage less than \$20,000.

The Chemist, because he had limited the hot work to fracture repairs, was not to blame for the pipe-support welding blaze. Everyone agreed that clearly the last repair crew was to blame because they should have read the Chemist's Cert more carefully.

But, hold on! They may not be the only culprits... Hazard Communication is such an OSHA "big deal" that OSHA has spread the responsibility (and hence, the blame!) for keeping a workplace safe, even when your own employees might not be involved! It seems you just may be Your Brother's Keeper!

Note this little-known paragraph from OSHA's "Precautions before Entry":

1915.12(f): Exchanging Hazard Information Between Employers:

"Each Employer whose employees work in a confined space shall ensure that all available information on the hazards concerning that space is exchanged with ANY OTHER EMPLOYER WHOSE WORKERS MAY ENTER THAT SPACE..."

We know the owner of the barge employed the Port Engineer. The shipyard employed the Project Manager. And the Chemist's company employed the Chemist. And all three knew perfectly well the fire hazard of the insulating foam in the voids outside the cargo tanks.

Therefore, OSHA seems to say, these employers (including the Chemist company!) had a duty to broadcast their concerns to other Employers. OSHA is serious about the need for us all to keep the workplace safe by telling others what we know about repair dangers. This can make SCP reports even more important because you know so much!

Random Adam

There are among you many smart, experienced people. So many, in fact that Sound Testing has trouble coming up with sufficiently challenging monthly questions. And even the hard ones attract multiple right answers. Of course, since we're not generous enough to reward every smart person with a portrait of Hiram Ulysses, we make a random drawing from amongst the successful entries.

How do we know the selection is truly random? Because of the randomness of the Grand Selector, that's how.

And the Grand Selector is none other than 2-Year-Old Mr. Adam Liu, seen in action.



P.S.: Think you have a subtle, challenging maritime question? Send it along! Young Adam would love to draw the answer to your crafty wisdom in the new year!

Congrats to **JOHN RICHARDS** of **ARROW LAUNCH!**: December's Winner:

Q: Which fixed ballast, 7 times as dense as salt water, may come from an offshore supply vessel? **A: Drilling Mud (Honorable Mention: Frank Gosser and Mike Santini)**

January's Question:

The paint boss inspects the work of his most promising apprentice spray painter. He's interested in "super-millage"...a coating applied too thickly. He's also interested in any "_____s"...places which the apprentice may have missed.

Please submit us your answer before
January 25, 2017.

All correct answers will be entered into a random drawing and one person will win a
\$50 gift card!

One entry per person, please.