SCP Tribune©

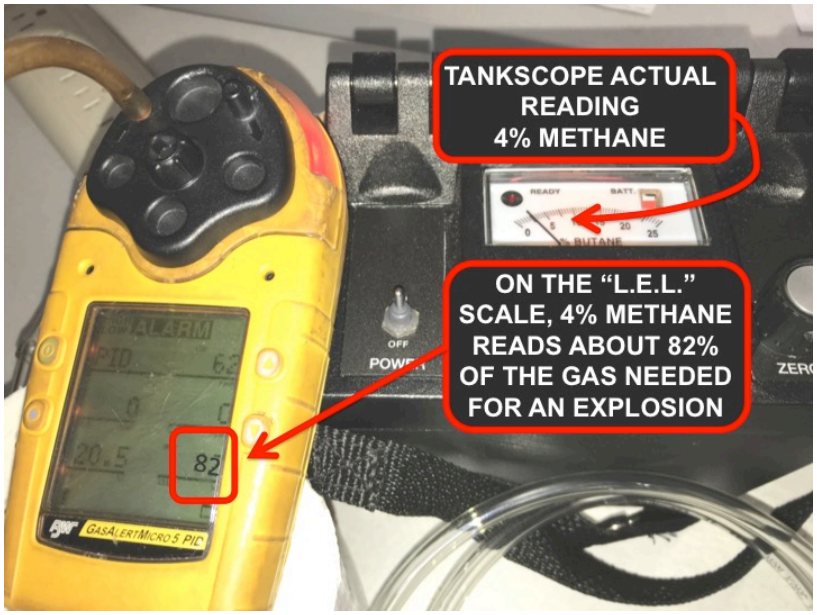
Mental Calisthenics

We know it's the Competent Person's duty to test workplaces before workers enter them, and before workers weld or burn in the spaces.

And not everyone realizes that competent people have their own crafts to take care of. And, to complicate things further, it turns out that understanding a gas test meter is a special challenge. Why? Because SCP's must balance TWO types of percent scale in their heads at one time. Here's what we mean:

A meter's oxygen tester reads a straightforward percent: 21% of fresh air is oxygen. (If we have a box containing 100 particles of fresh air, 21 of them will be oxygen.) OK. And isn't the combustible gas cell's "lower explosive limit" reading also a percent?

Sort of. But while the "L.E.L." function reads gas as a "percent," it's not the same kind of percent as the oxygen reading. For instance, a gassy reading of, say, "5%" does not mean 5% of the air is gas: Instead, it tells us that however much gas is present, it is about one-twentieth of the gas needed for an explosion.



TRAINING

Shipyard Competent Person

Full 3-Day Courses
Jul 11-13 @ SSC*
Aug 1-3 @ SSC*
Sep 5-7 @ SSC*
*South Seattle College *Georgetown* Campus

1-Day Update Courses
Jul 12@ SSC*
Jul 19 @ Fishermen's Terminal
Aug 2 @ SSC*
Aug 9 @ Fishermen's Terminal
Sep 6 @ SSC*
Sep 13 @ Fishermen's Terminal

DIRECTIONS:

Fishermen's Terminal:
Nordby Conference Room
SSC:
Georgetown Campus very close to I-5, Michigan St Exit, straight to Corson Ave S

OSHA 10 Maritime
June 19-20th

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

Any Questions? Call 206-932-0206

Eighty-Five Percent!

Communication is 85% of this job! That's the mantra as Employers, Competent Persons, and Chemists struggle to do ship repair jobs safe.

A dangerous happening in late May showed precisely how a bad communication might spell trouble.

A trawler had been crewed, provisioned and was ready to leave town. While taking on fuel, red-dyed diesel began bubbling through a main deck fracture from the fuel tank below the port stern roller at the trawl ramp.

No time for tank cleaning; besides, with all tanks topped up there was nowhere to store the tank's fuel. So the Engineer called the Marine Chemist to fill the fuel tank with inert gas so it was "Safe for Hot Work" as a shipyard welder made repairs.

After filling the tank's small airspace with inert gas, the Chemist wrote how repairers must "**keep tank openings and vent closed up**" so repairs could be done safely.

But as weld repairs began, the fracture spread. How far?? Unhappily, the welder used compressed air to pressure-test the extent of the damage. In 10 minutes he had blown out much of the carbon dioxide that was keeping the operation safe.

Pressure Test Gear Blew Out the Inert Gas

Fortunately, an alert SCP, monitoring the safety of that complex job, stopped the work when his tests showed the missing inert gas. Of course, he called the Chemist back. Lessons abound.

First, it was not enough that the Chemist write **"keep tank openings closed"** on his certificate. He should also have told supervisors so everyone knew how important his request was.

Second, the Chemist was not told that the welder might add a pressure-test to the work scope. Had he known, the Chemist would have stayed on the job to pressure test with inert gas instead of air so the tank would stay safe.

Third, the Competent Person had posted the certificate on the vessel's gangway, many feet from the fracture repair. It should have been closer to those actually doing the work.

Fourth, the vessel crew was also helping with the repair, and that had added a layer of confusion about job safety.

Fifth, years ago the Chemist had to stand by during repairs on an inerted tank. (Nowadays he need only be "readily available" by cell phone.) Maybe those guys years back were onto something.

Last, give the Competent Person credit for keeping the jobsite safe!

Congratulations to **Marvel Malden** of **General Dynamics NASSCO-Bremerton**, May's Winner

Honorable Mentions: Too numerous to mention.

Q: For the historically-minded, there used to be a shipyard laborers' union hall on 1st Ave in the Regrade area of Seattle. But the sign didn't say "Laborers"

– What was the old-time name for shipyard laborers?

A: SHIP SCALERS

June's Question:

A 1,000 gal waste-oil tank on a fish processor was cleaned and certified **Safe For Workers**. It contained only fresh air. At 6:00AM the next day the Competent Person measured the oxygen at about 21%. Later, as he was testing for 2nd shift the oxygen reading surprised him. It had dropped. He tested it again. Sure enough, the oxygen was down 1 unit to 20%.

It was clear: the oxygen could not have been absorbed as rust in such a short time. And the clean tank contained nothing else that might use up oxygen so quickly.

If the oxygen had not been absorbed, how had it been reduced? Come to find out, someone had dumped some compressor oil, heavy in Freon™ (R-22), into the tank. The vaporizing R-22 apparently had displaced some oxygen.

The oxygen went down by 1 percent (21 to 20%).

1) What %-age of Freon would explain the lowered oxygen reading?

OSHA's allowable limit for breathing R-22 is listed as 1,000 ppm.

2) Roughly how many ppm of R-22 were in the tank's air?

3) Was the tank still safe for workers to enter?

(Compressors Have Their Oil Changed)

Please send us your answer to newsletter@soundtestinginc.com
or admin@soundtestinginc.com
before June 25, 2018.

Every correct answer will be entered into a random drawing and one person will win a **$50** gift card!
One entry per person, please.