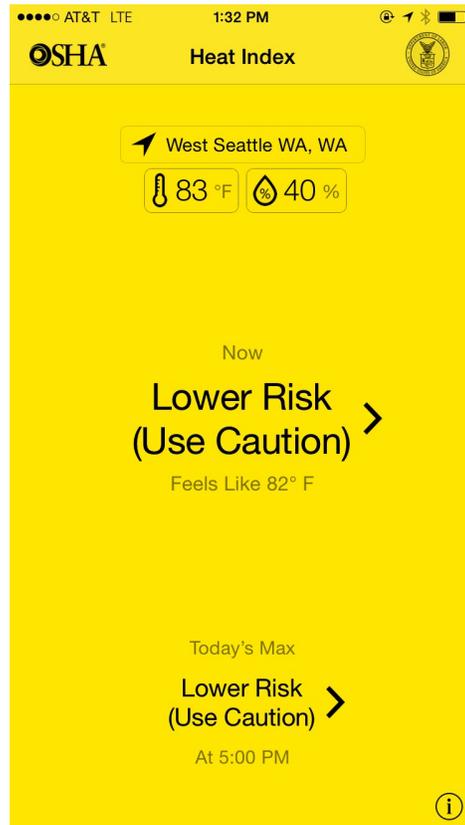


SCP Tribune[©]

It's Getting Hot in Here

OSHA's Ship Repair standard, as we recall, tells the Competent Person to make sure workplaces (confined and enclosed spaces...) are safe to enter. Testing air quality is just the start: next we enter workplaces to check for dangers the meter might miss.

And the meter is sure to miss a danger the climate has brought us this past month: HEAT. Record-breaking heat. And this danger is doubled (actually, quadrupled) by 3 things:



TRAINING

Shipyard Competent Person



3-Day Initial

July 8-10

Aug 12-14

1-Day Updates

July 9

July 22

Aug 13

Aug 26

OSHA 10 Maritime & General Industry

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 or general industries.

Please call our office (932-0206) for the next class date.

First, the metal fabrication (welding, cutting, carbon-arc) we do is hot; Second, the PPE our work demands (leathers are SO uncool...) and Third, many work places have poor ventilation.

Actually, there is sometimes another (Fourth) dangerous condition: High Humidity, which makes the first three even worse.

Why is humidity so bad? Because the simple, unpleasant fact is: around heat we humans cannot control our Core Body Temperatures unless we evaporate a bunch of sweat. (Evaporating a pound of sweat sucks 250,000 calories of heat from our bodies!)

And what things make for good sweat evaporation? First, drink a bunch of water so you can make a lot of sweat. Second, provide ventilation. Moving air helps the sweat evaporate. Third, wear light clothing so moving air can get to the sweat. (Sorry about those leathers...)

Fourth, though you can't control it, low humidity is good. (In high humidity our sweating can't help us because the sweat can't evaporate.)

Continued on the next page.

Hot in Here, Cont.

This spring, OSHA released a new version of its OSHA Heat Safety Tool app for Apple devices, with full-screen color alerts, easy to use and adapts to smart phones.

This improved version lets you know instantly if you are in a high-risk zone due to heat and humidity. The app displays precautions that need to be taken to prevent heat-related illness. The app also gives us important safety information when and where we need it, right on our mobile phones. [Download](#) it today.

More information on preventing heat-related illness is available on [OSHA's website](#), where you can find fact sheets, training manuals, community posters, and more in both English and Spanish.

Inerting



Doubler ready to weld to tank top

In our June edition of the *SCP Tribune* the subject of inerting fuel tanks came up, highlighting the occasional convenience of the practice. Meaning that for some hot work inerting can save the ship repairer the cost and time needed to properly clean a fuel tank.

In this July Tribune let us consider some not-so-convenient parts of the "inerting" process.

- Inerting is not always worthwhile. It works only when repairs are external. For hot work within a fuel tank, the tank must be cleaned, and then certified "Safe for Hot Work" by a Marine Chemist.
- When he inerts a fuel tank the Chemist turns a merely unpleasant space, like a diesel tank, into a deathtrap. The tank has absolutely no air within, and entry would be fatal.
- Since the Chemist is pumping high-pressure inert gas, the fuel tank being inerted had better have a good vent to avoid damage from too much pressure. (For instance, adding 4 PSI will load a 12' X 30' bulkhead with more than 100 tons of force!) Those square inches add up quick, and failing to avoid added pressure can do a lot of steel damage.
- With high-pressure gas comes some drastic change-of-state problems. Carbon dioxide and nitrogen get very cold, to the point where nearby steel can get brittle and crack.
- Inert gas (particularly carbon dioxide) when shot into a tank through a non-conductive high-pressure line can generate a lot of static electricity. Such static electricity may explode the very atmosphere we're trying to make safe.
- Lastly, inerting with high-pressure nitrogen or carbon dioxide can be violent. Fuel anywhere near the overhead of a tank might be blown out the vent causing tremendous ecological damage and expense.

For these reasons the National Fire Protection Association ship repair rules say a Chemist "...shall supervise the introduction of the inerting medium..." What does that mean? At least consult the Chemist as the job is planned. Inerting a fuel tank may result in more problems than it solves.

Ask a Chemist

Question: As a project starts out the bilge is clean. How clean must it be kept for the job to continue safely?



Answer: There is no sensible answer to this question, for two reasons: First, the SCP can't make any cleanliness decision without understanding the scope of the job.

And second, as oil is the enemy of machinery space cleanliness, and as everyone knows there are dozens of engine room fittings that can leak oil. (Diesel injectors, oily-water separators, diesel return lines, crank case fittings, hydraulic systems...and so on.)

So, keeping an engine room safe demands constant vigilance from an SCP who is well informed about the work.

Editor's Note



Sometimes the *Tribune* has room for an offbeat item. So last month, as I saw my precious Glenlivet-25 happy in its lab stock bottle, I shared how the etched "Ferricyanate" label might cause a random intruder to think twice before guzzling my treasure.

Most readers seemed to accept the article as written. TOTE'S Bill Taylor, however, thought it (the article, not the Glenlivet...) in bad taste. And, turns out he is right.

Bill suggests it is best practice to avoid any mislabeling at all, even a mislabeling that points in the direction of safety. (Whiskey can be dangerous and labeling it as "ferricyanide" may keep an innocent from harm to which the original label might tempt him.)

I interpret Bill's complaint as saying certain basic and essential safety concepts (like proper labeling) should never be modified, least of all for short-term gain. Such benefits are seldom worth the damage done in a workplace that depends on the integrity of every label.

Bill, thanks for providing me that most important "teachable moment," wherein the teacher teaches himself. We toast your contribution! –Don Sly

Congrats to **Robert Anaya** from **Stabbert Maritime** for winning last month's quiz and a \$25 gift card!

Last Month's Quiz:

Q: How far do coatings need to be removed from a hot work point?

A: a minimum of 4 inches from the area of heat application or to a sufficient distance from the area heated. The Seattle Fire Department requires foam insulation be removed at least 3 feet from the site if there is no Chemist Certificate.

This Month's Question:

When working around flush manways, how high must guards be?

Submit your answers to newsletter@soundtestinginc.com before July 25, 2015. All correct answers will be entered into a random drawing and one person will win a \$25 gift card!

One entry per person, please.