AUGUST 2013

SCP Tribune

Hydrogen Sulfide (H_2S)

Most of us know what Hydrogen Sulfide (H_2S) smells like. The smell of rotten eggs is unforgettable. One whiff and you remember Oh yes, my good friend H_2S! Let's review some of the concerns of this obnoxious gas.

The hydrogen sulfide in our workplaces usually comes from one of three sources. Most common is sewage decomposing in a tank without air. A special type of bacteria that lives in spaces that lack air (like eggs), is very good at making hydrogen sulfide. That's why sewage tanks that sit around undisturbed are the worst offenders. H2S forms when materials containing sulfur decompose in an oxygen-deficient environment.

The second source of H_2S is from rotten tissue from fish/crab. Because sea life has a lot of sulfur, its decomposition, again without air, makes hydrogen sulfide in gross amounts. Several years ago, a tuna-fishing vessel off Hawaii lost power and was adrift in the warm sea. Ten days later the mate opened the fish hold and fell to his death after a single breath of hydrogen sulfide.

Lastly, here in the Pacific Northwest, we sometimes meet up with an uncommon but very toxic sour crude oil from the Peace River district in Canada. H_2S can be fatal at levels above 100ppm. The airspace above Peace River Crude can have levels of 400-500ppm.

One factor that always increases hydrogen sulfide is heat. The warmer it is, the more vigorous those anaerobic bacteria become. This turns out to be great news for us locals because our Puget Sound water is pretty cold. So, if a sewage tank is part of the hull, it's too cold for rapid bacterial action and the hydrogen sulfide will probably not be all that bad.

Thanks to SCP awareness hydrogen sulfide is a hazard we can deal with.

SOPE Golf Tournament

On June 28, Sound Testing's foursome took another 1st Prize at the Society of Port Engineer's Golf Tournament at North Shore. Andy Watts, Pat Sandstrom, Dale Blair and Don Sly signed up for the adventure. But Don had to work, so his brother John stood in for him. And, for the 2nd year in a row, the Sound Testing entry took the prize! But it makes one wonder: If our team takes the prize only when Don can't show up, what does that mean? Hmmmmmm.

Second Annual Customer Appreciation Party

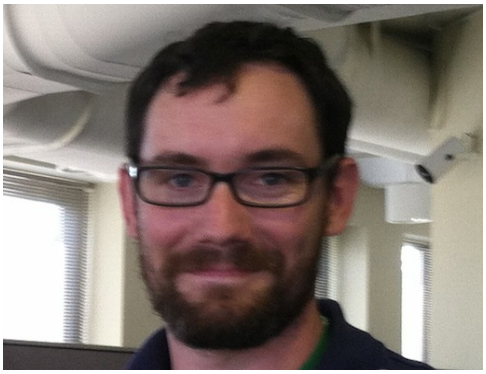
Thank you all for coming to our party, in spite of the light rain! It was wonderful to see so many of you and, for the office staff, it was nice to put faces to names! We look forward to seeing you again soon.

DOSH Maritime Consultation

When Steve Merkel of Washington Labor & Industry steps from his State vehicle, clipboard in hand, the safety supervisor's blood pressure may go up a notch.

Not to worry. Steve isn't there to "take names and kick butt."

Instead, Steve Merkel's job is to communicate and educate (and sometimes to learn about) the details of safe ship repair.



"The DOSH Consultation Program offers businesses free and confidential professional advice and assistance. DOSH Consultants do not issue fines-instead working together with companies and their employees to eliminate workplace hazards. The ultimate goal of DOSH Consultation is to help companies take a proactive approach to safety and health. This is accomplished by identifying and eliminating potential workplace hazards before an accident can even occur. At your request, I will visit with you and help you to evaluate employee safety and strengthen your safety and health programs. As an added incentive, by eliminating these potential hazards and preventing injuries, companies can also save money on their industrial insurance costs. For more information or to schedule your next consult, please don't hesitate to contact me." Steve Merkel 253-596-3924 (Office) or 253-312-1311 (Cell).

Follow-up: Electrical Insulation Fires

If we needed confirmation that July's warning about electrical insulation fires was a real worry, we just got it. The Coast Guard has finished its investigation on the CARNIVAL SPLENDOR fire (November 8, 2010).

The CARNIVAL SPLENDOR was underway off the coast of Mexico when the No. 5 diesel generator blew up, spraying engine shrapnel, lube oil and fuel around the deckplate area, which caused an oil fire. Though the oil fire was relatively small, it still ignited insulation in a cable-run immediately above. The fire in the cable run was also relatively small, but it made so much smoke the crew couldn't even locate the fire, not to mention putting it out. Also, the fire had spread to an engine room cable run which then caused a power loss the whole vessel.

It took fire teams about two hours to find the fire in the cable runs. However, by this time the CO_2 and dry chemical extinguishers had no effect because the copper core was just too hot, and the cable insulation kept burning. An attempt to release the CO_2 system failed, but the routine closing off of the area to contain the expected CO_2 starved the fire of air and it went out.

TRAINING

Shipyard Competent Person

Seattle

3-Day Initial • Aug 7-9

1-Day Update • Aug 28

3-Day Initial • Sep 11-12

OSHA 10hr Training

This 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.

Strengthen your workplace safety and health today by calling Sound Testing for the next scheduled class.

Physical Hazards of Spaces

As an SCP, it is easy to become so focused on a space's airborne hazards that you might totally miss a tank's physical hazards. These hazards hurt more workers than the atmospheric variety. (Of course, flammable vapors or oxygen shortage can easily be fatal; but injuries from, say, slippery tank surfaces are more common.)

Competent Persons don't have much choice in the matter: OSHA's Subpart B ("Precautions before entry") demands the SCP take a "visual" tour looking precisely for those physical hazards.

Of physical hazard types falls are most common, and usually start as trips or slips. And, because steel is not very forgiving, a fall in a tank or machinery space may cause more than just bruising. What can you do about it? Fighting the normal disorder in ship repair might help. A pull-back session every week or so helps keep leads and ventilation out of walkways. Open holes on a 'tweendeck can be covered with cleated plywood.

But what could you do about a muddy ballast tank? Probably not much. However, the hazard shouldn't be a secret. A manway sign would warn workers that they need 3 points down at all times.

Routine fall prevention can be a pretty boring concept. But, like other routine safety concerns, fall prevention could pay double dividends during the dark of an electrical failure or the rush through smoke to put out a fire. It's the routine hazards that are sometimes hard to combat.

Can You Conserve Your Chemist Cash?

Rely on your SCP!

If you have an experienced SCP, he or she knows pretty well what the Marine Chemist is going to require. Send the SCP down to the boat for a preliminary inspection before setting up the Marine Chemist's visit. If the SCP has questions, he or she can call the Chemist before setting up the appointment.

If your SCP is not experienced, you need to start this preliminary inspection process anyway. With practice, your SCP will get up to speed very quickly.

It is much cheaper to have your SCP point out obvious problems rather than paying your Marine Chemist to do it.

Look for more ideas to save money in future newsletters!

Sound Testing, Inc.

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Please Welcome Mike Schmitt!

Mike Schmitt spent more than a decade as analytical chemist with Harbor Branch Oceanographic Institution and as a chemist and quality assurance manager of a large commercial laboratory in Colorado. Mike had been feeling the need for some wider horizons in 2007 when he met Don Sly. Don encouraged Mike to make the leap into the Marine Chemist community. He trained in many ports around the country, including with Sound Testing in Seattle. Mike has been working in Texas, dealing with all those drill rigs and process chemicals and the toxic challenges of Cancer Alley... the very things we're often spared here in the Pacific Northwest.

As a Marine Chemist, Mr. Schmitt is committed to providing the highest level of service, dedicating time and careful attention to helping clients protect life, limb, and property. We are fortunate to have Mike's enthusiastic confidence and skill! You'll meet this Chemist's Chemist soon!

SCP QUIZ

Congrats to Terry Glimm who won a $25 gift card for last month's quiz!

Last Month's Answers:

1) Name 3 pieces of information needed on a product's Safety Data Sheet (SDS)?

Any combination of the following:

Product Identification, Hazard Identification, Ingredient Information, First-aid Measures, Fire-fighting measures, Accidental Release Measures, Handling and Storage, Exposure Controls/PPE, Physical and Chemical Properties, Stability and Reactivity, Toxicological Information, Ecological Information, Disposal Considerations, Transport Information, and Regulatory Information.

2) If a product contains a toxic ingredient that is less than 1%, it will show up on the products Safety Data Sheet (SDS)?

[True] or **[False]***

*We are feeling a little guilty about this question since it is so obscure as to approach the point of a "trick" question. Therefore, either answer is acceptable even though the correct answer is False.

However, we do feel that it is important to understand that manufacturers are not required to name some toxic ingredients on the Safety Data Sheet (previously called the Material Safety Data Sheet).

They do not have to list hazardous components that are less than 1% of the total unless there is information to indicate that the component is hazardous below this level. The cut-off limit is 0.1% for carcinogens. [See 29CFR1200 App. A]. Also, they are not required to name components that are Trade Secrets. [See 29CFR1200(i) and 29CFR100 App. D].

This Month's Question:

1) If a pipeline could deliver a hazardous material to a tank where workers will be inside cleaning, or doing hot work, what measure must the employer first take?

2) OSHA requires that the SCP Log of inspections be kept for _____ days after the job is done.

3) When testing a confined space on a vessel, OSHA requires that the SCP, after doing the remote-testing, must then _____ the tank.

Submit your answers to newsletter@soundtestinginc.com before August 25, 2013. All correct answers will be entered into a random drawing and one person will win a $25 gift card! One entry per person, please. The correct answer and the winning entry will be published in next month's issue.

ASK A CHEMIST!

Looking for clarification? Ever wonder why rules are written they way the are? Ask away! Every month a worthy question will be answered here!

Question:

What person associated with a job has the legal responsibility to decide when a Marine Chemist is needed and are they also required to be the one who makes the call?

The Answer:

Ship Repair Workers are protected by OSHA regulations. In "Subpart B" ("Confined and Enclosed Spaces") the rules say straightforwardly that keeping a safe workplace is the job of the Employer of the ship repair workers.

For about one project in 10, the rules say you will need a Chemist. Therefore, says OSHA, it is the Employer's duty to set up lines of authority to make sure the Chemist is called when needed.

Although, whoever "signs the worker's paycheck" has the overall responsibility for making sure the Chemist shows up when needed, in practice, the Steel Shop Lead Man, or the project Superintendent, or the Competent Person himself may actually dial the phone.