SCP TRIBUNE©

Piping vs. Certainty

In commercial shipyards more than half of a Competent Person's hard work is aimed at MAINTAINING SAFE CONDITIONS at the workplace. And when keeping conditions safe, says OSHA, the first order of business is to control drips from oil pipes in "Safe for Hot Work" tanks.

This Temporary Plug Keeps the Tank Safe for Hot Work

Why the piping? Because pipes deliver harmful stuff (sewage, cargo, fuel, gassy vapors, inert gas...) from one place to another. So fuel and cargo pipes will make a tank unsafe if their contents leak.

"No problem!" says the Boss. "Just shut the valves!" Stopping leaks may not be that simple.

Joe Dadurra, who was a tankship Chief Mate for years before he wrote much of OSHA's Maritime Standard in the 1970's, famously hated valves. They leaked. (In fact, Port Engineers Bret Vichorek and Steve Tolle told us that ABS and USCG specs allow some expected cargo valve leakage.)

TRAINING
SCP CLASSES

Full 3-Day Courses

MAY 1-3 @ SSC*
JUN 5-7 @ SSC*
JUL 10-12 @ SSC*
AUG 7-9 @ SSC*

1-Day Update Courses

MAY 2 @ SSC*
MAY 9 @ Fishermen's Terminal
JUN 6 @ SSC*
JUN 13 @ Fishermen's Terminal
JUL 11 @ SSC*
JUL 18 @ Fishermen's Terminal
AUG 8 @ SSC*
AUG 15 @ 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:

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.

Piping vs. Certainty, Cont.

Can You Find the Pneumatic & Damage Control Blocks?

So to be safe, says Mr. Dadurra's OSHA, closing valves is not the answer. Instead, shipyards are to use **temporary blocks** to prevent pipes leaking oil or fuel into tanks where there is "hot work."

And the Navy considers lines so dangerous that every detail about line-blocking is covered in Standard Item 007-24.

Putty Knife "Blind" in a Flange

It turns out there are several types of "blocks": First, a piece of sheet metal (like a putty knife) can be slipped into a flange and then tightly held by flange bolts; that is secure. Or hammer a DC plug into a pipe opening. (DC is Navy for "damage control"). Or, pump up a pneumatic plug (as in the image above) note the bicycle pump used for inflation) to block a pipe's opening. Sometimes the Navy has even allowed plastic "blocks" taped in place.

Jacking Plate with Gasket Seal

We contacted several shipyards for more information. Newport News, for instance, routinely blocks the openings of oil pipes with "jacking plates". Turning threaded stock through a plate forces the plate and gasket against the pipe suction for a seal. It takes labor and time. But for long-term projects, the threaded plate is cheaper than taking a flange apart, and definitely cheaper than re-cleaning a tank and recalling the Chemist. Chemists, by the way, have a slightly different approach: They emphasize cleaning lines by ("flushing with water or blowing with air") and tagging valves shut.

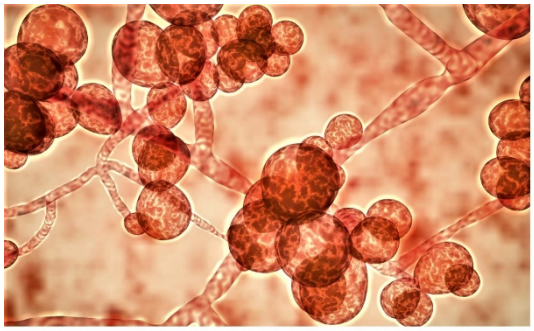
But Great Minds must agree: We can't "Deal in the World of Certainty" unless we control the fuel and cargo and sewage piping where we work.

Ship Repair And Candida A

Candida Auris is a dangerous fungus. So dangerous it's page 1 of the New York Times. The NYT says there are 3 reasons we should worry: First, **Candida Aurus** is in the air, everywhere. Second; No known disinfectant can kill all of the Candida A. and Third, if you get infected you're on your own: antibiotics can't cure you.

Another scary detail: We humans continue to make our fungus problems worse. How? (Continued)

Ship Repair And Candida A, Cont.


Micrograph of Candida Auris

Our farmers use "azole" fungus-killer on almost every potato, tomato, onion, bean or wheat product we eat. These fungus-killers are in fact super-fungus factories. Why? Because some bugs always survive and join a population of super-fungi that can't be killed. Including, for instance, Candida Auris.

How immune has Candida A become? Candida A infected the blood of a man in an English hospital. After 6 weeks it killed him. Staff knew they had to disinfect the room. So, they sealed the area and pumped it full of the most powerful fungus killer ever: aerosol hydrogen peroxide. For more than a week! The 8 days of hydrogen peroxide killed everything. Except? Except Candida Auris. It has become immune.


Biohazards in a Sewage Tank

"So, what?" asks the Ship Repairer. Well, sewage systems cause concern. Why? Before entry, a sewage tank must be cleaned, disinfected, and inspected "Safe to Enter" by the Chemist.

But now the Chemist has a problem. Why? Because there is no test telling us in real time whether fungi or any such pathogen is a problem or not.

Used to be the Chemist simply made sure the Cleaners cleaned the tank so well there was no raw sewage left. Step one. Then, disinfect so thoroughly we were sure no bugs were left alive. Step two.

Then, with ventilation, blanking lines, and Competent-Person-inspections we'd make sure the tank would stay dry, ventilated, and safe. Fine.

But now, because we can neither detect nor disinfect some dangerous stuff that may well be out there, our system breaks down. How to "deal in the world of certainty" when repairing sewage systems in the age of Candida A? We're still working this out. Any suggestions?

Congratulations to **Josh Amans** of **Foss:** winner of April's quiz.
Honorable Mention: Jack Hagey, Mike Farley, Daniel Pavlik, Eryn Marshall, Sean Kelly, Michael Santini, Steve Tucker & John Chapman
April's Q: What piece of the rudder shoe holds the pintle bearing?
A: GUDGEON

May/June's Question: When the old boilermaker says his toolbag is lighter because he left his "button set" in the tool room, what's he referring to?
Please send your answer to newsletter@soundtestinginc.com or admin@soundtestinginc.com before June 25th.