

# SCP TRIBUNE<sup>®</sup>

## Half-Measures Can Be Worthwhile

Everyone understands that before we do hot work inside an oily cargo or service tank we need a Marine Chemist's certificate. The Chemist must make sure the tank has been cleaned enough so those 5,000°F repair temperatures would not cause a fire or explosion.

So when a container-cargo ship needed to repair a fracture to structure inside a huge bunker tank, the Port Engineer contacted tank cleaners. Bids averaged \$40,000-\$50,000.

The local Marine Chemist, however, offered an alternative. Under special conditions it might be possible to save a lot of trouble if the huge tank were partially, not completely, cleaned. But, what "special" conditions did the Chemist have in mind? What do the regulations say?

## TRAINING

### Shipyard Competent Person

#### 3-Day Initial

Sep 7-9 @ SSC

Oct 5-7 @ SSC

Nov 2-4 @ SSC



#### 1-Day Updates

Sep 8 @ SSC

Sep 21 @ Fremont

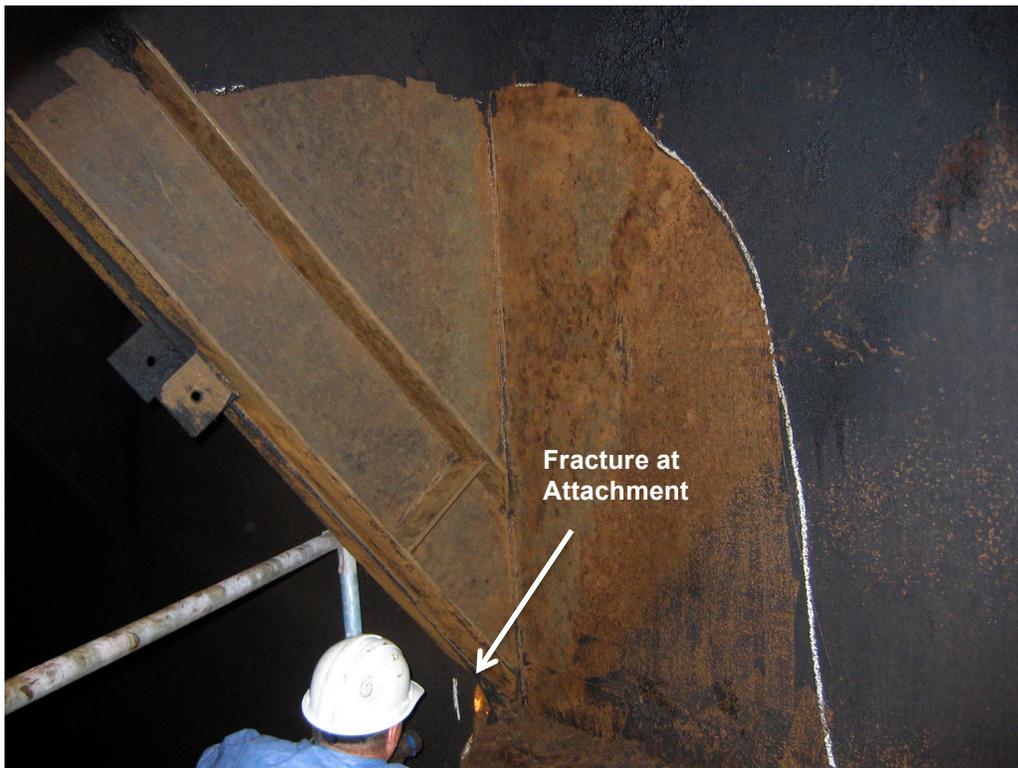
Oct 6 @ SSC

Oct 19 @ Fremont

Nov 3 @ SSC

Nov 16 @ Fremont

Fremont @ Fishermen's Terminal  
(SSC: Georgetown Campus Just off I-5:  
Corson Ave)



First, the flash point of the tank's oil had to be above 180°F. Remember: the lower its flash point, the more dangerous the oil. That minimum 180°F means that only heavy, thick oils are eligible for partial cleaning. (Distillates like gasoline, diesel and jet fuel? Clean the whole tank!)

Second, the amount of cleaning naturally depended on the planned repairs. Sparks, slag or heat could not go outside the area cleaned. (Continued)

## Half-Measures, Cont.



Oily Bunker Tank

Third, the cleaners had to pump out all puddles of “free-flowing” fuel, so the oil wouldn’t leak into the freshly-cleaned area around the repairs. This meant cleaning three frame-spaces of the tank bottom.

Fourth, the Marine Chemist limited repairs to the fractured frame: there was no blanket “Safe for Hot Work” for that tank.

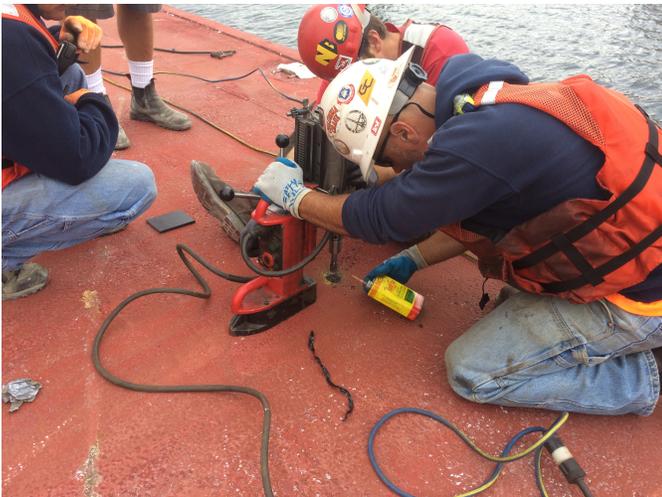
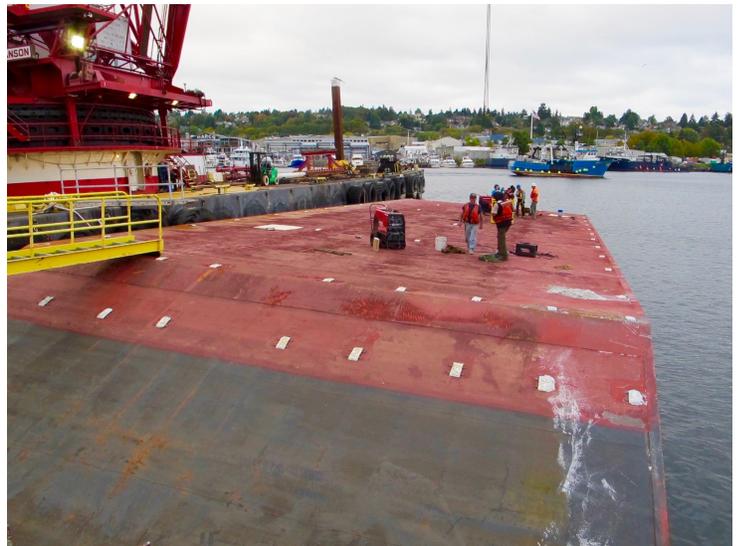
With the usual complications (cleaning a pathway for workers and their service leads) the partial cleaning alone took two shifts. And as the SCP maintained safe conditions the repairs took another 3 shifts.

Detailed communication among Port Engineers, Shipyards and Contactors will save time and trouble.

## Salvage

When a Shipyard Competent Person wishes to test a barge’s voids before allowing hot work on the hull plate, the protocol is straightforward: 1. Remove the manway cover; 2. Test void atmospheres remotely by pumping air from the voids through a plastic tube to the test meter. 3. If the void atmosphere tests “Safe” the Competent Person carefully enters for a bright-flashlight look at the void’s interior structure and plate.

That scheme couldn’t work on the barge pictured. Its load had shifted, turning the barge upside-down! The manways were 10-feet under the surface of the Ship Canal. But the



heavy-lift crew needed serious lifting pads (see image on next page) welded to the barge hull. Passing lines through the lift eyes and under the barge would allow the crane to turn the barge back over. But how to test the sunken barge compartments?

Do the best you can. Note the mag-drill (to the left) making 1/2” holes in the barge bottom plate for testing the voids within.

Such testing might appear simple, but the Competent Person found it a challenge. Why? (Continued)

## Salvage, Cont.

One void showed hydrostatic pressure exhausting through the drilled hole. Strangely, the other drilled hole showed a strong suction, probably from interior rusting. Both proved troublesome. Why? Because installed pumps in modern meters are extremely sensitive. Either pressure or suction in the sampling line shuts down the meter.

So the SCP, surrounded by project managers, Port Engineers, and other important people, suddenly was unable to do the simplest tests of the voids below his feet. How embarrassing!

Fortunately his SCP kit bag included a hand-held “squish-bulb” pump that could both deal with the pressure and overcome the second void’s vacuum. Now the Competent Person could test the void atmospheres.

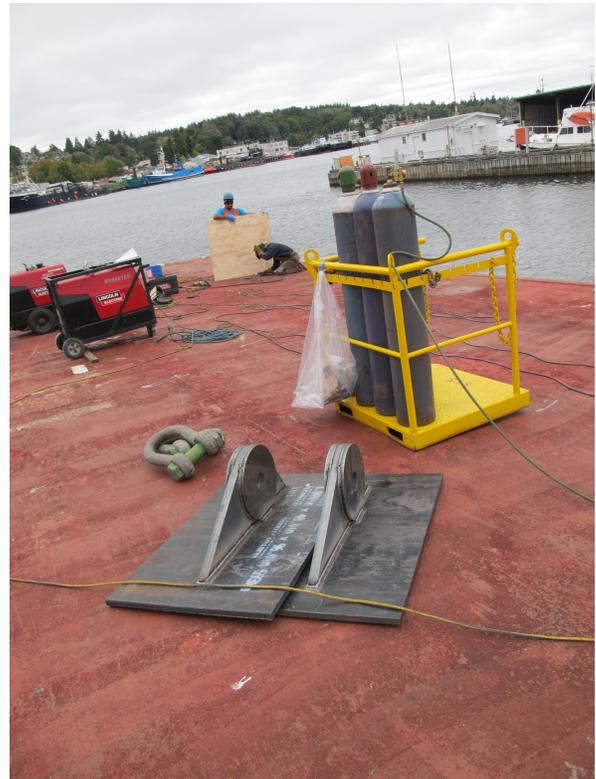
Both compartments tested free of combustible gas, and sounding the water within could detect no oil on water surfaces. “Safe for Hot Work.” The pad-eyes were quickly production-welded to the hull.

Soon workers ran cables from the pad-eyes

under the barge and made them up to the recovery barge’s derrick.

The powerful derrick’s strain on the cables safely rotated the overturned barge.

Another project started safely with the essential help of the Competent Person.



Congrats to **Matt Grace** of Global, 1<sup>st</sup> Flagship: Winner of August’s quiz.  
Honorable mention goes to David Gunderson from Elliot Design Group and Paul Huber of Manson Construction

### August’s Question:

Q: Every manbasket the crane lifts must have a secondary attachment to the hook. A rigger would say that manbasket was properly **“MOUSED”**

### September’s Question:

The maritime term for the salvage of the overturned barge by rotating about its longitudinal axis is \_\_\_\_\_ing.

Send your answer to [newsletter@soundtestinginc.com](mailto:newsletter@soundtestinginc.com) before September 25, 2016.

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

One entry per person, please.