

# Maritime Safety +

## Shipyard Safety



The shipyard; a time for your ship to be rejuvenated. The rusting steel surfaces are prepped, blasted, replaced if necessary and given a fresh coat of paint. The aging systems – electronic, mechanical and electrical – are upgraded. Perhaps the crew is staying ashore, or perhaps they are subjected to the roar and din of the yard work 24 hours a day.

It is also a time of increased risks that will require identification, analysis and mitigation. Whether they are risks to your crew or risks to the shipyard workers, vessel personnel must be cognizant of them and proactive in addressing potential and emerging risks.

Slips, trips and falls are a small yet significant part of the potential risks and require daily attention. Cutting and welding leads, extension cords and temporary hoses running through spaces provides ample opportunity for slips, trips and falls. Ensuring these obstacles are hung from the overhead or properly barricaded help eliminate this common cause of injuries.

Hot work – cutting, welding and grinding – is another risky activity seen much more frequently during shipyard periods. Personal injury, fire and damage to surrounding areas are all potential risks of hot work. How do we ensure it is done safely?

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## Casualty Reports to Review

Slips, trips and falls account for close to 75% of all injuries on vessels. We frequently discount these as low-hanging fruit, as the injuries are often relatively minor. Check out the two reports below to remind you and your crew that they are sometimes very serious – like fatal.

### [BSU – Dublin Express – July 2016](#)

A welder working on a ladder while underway fell from a height of ~1.4 meters, suffering fatal injuries. The case is still under investigation, but there are points for consideration. The welder was working with his hands(?) above his head, possible limiting chances of breaking the fall and there were no crew assisting.

### [BSU – Silver Pegasus – Sept 2014](#)

The deck watch officer on a bulk carrier went to inspect the cargo holds for damage after discharging. He was found laying at the bottom of the hold with critical injuries a short time later.

It was surmised that he fell from a height of ~6 meters to the bottom of the hold. The fall was so violent that the victim's hardhat had bent inward, causing his fatal injuries, before snapping back to its original shape.

The BSU has suggested that the operating company of Silver Pegasus consider using fall protection for such ladders. In addition, they recommended that IMO review SOLAS requirements to possibly include requirements for the use of fall protection in such situations.

THE AMERICAN CLUB

THERE ARE MANY FACTORS THAT CAN DISRUPT OUR SLEEP, AND LEAD TO FATIGUE.

MANY ARE BEYOND OUR CONTROL, HOWEVER...

PERSONAL PROBLEMS DRILLS weather

STRESS MEDICATIONS JET LAG SHIFT WORK

CRAMPED QUARTERS VIBRATION NOISE COFFEE

WORK LOAD FEAR AGE

POOR DIET FITNESS SHIP MOVEMENT

TAKE CONTROL OF FATIGUE. EVERYTHING IN MODERATION!

DON'T LET FATIGUE CONTROL YOU: DO WHAT YOU CAN TO CONTROL IT.

AMERICAN CLUB CROSS PREVENTION

## Take Control Of Fatigue

### Emergencies in Shipyards...

What happens when an emergency occurs during a shipyard period? Whether it is a fire, medical emergency or hazmat incident, do you know who will be responding? What if the incident involves a shipyard employee or contractor?

Normally, a yard or repair facility will spell out their capabilities or responsibilities prior to a vessel's arrival at their yard; Does that information get passed along to vessel personnel by managers or port engineers?

Unless you are at a very large facility, the chance of them having organic capability for emergency response is slim. In such a case, vessel personnel and local emergency services will bear the responsibility.

Know your responsibilities as vessel crew. Call the local fire department and emergency services. Whether just a phone call or a tour of the vessel, touching base with potential first responders can be quite helpful when you call them in an emergency situation.

## Even the Coast Guard isn't immune to fatigue.....

### [Collision of USCGC Key Largo with FV Sea Shepard](#)

It was a quiet morning off the North coast of Vieques Island between Puerto Rico and St. Thomas when the ugly head of fatigue reared it's head and struck the crew of the U.S. Coast Guard Cutter *Key Largo*. Having departed St. Maarten the previous morning and refueled in the evening in St. Thomas, the officer of the deck (OOD) on *Key Largo* had had little rest – estimated at 3-1/2 hours in the 24 hours prior to the collision.

The fishing vessel *Sea Shepard* had departed St. Thomas early on the morning of the collision to pick up five lines of lobster traps. With a 2-person crew, there was no dedicated lookout while traps were being hauled. This lack of a lookout (and situational awareness!) added to the fatigued watchstander on *Key Largo* equaled an avoidable collision and subsequent loss of the fishing vessel.

What can we learn from this? Certainly the knowledge that everyone – even those who enforce the regulations on rest hours – can fall victim to fatigue is an eye-opener. Rest hours – whether they be due to [IMO STCW regulations](#), [MLC 2006](#) or company regulation are there for a purpose. As humans, we need rest. When we don't get enough rest, bad things happen. Bad things like loss of cognitive thinking, slowed reaction time and inattention that can lead to careless watchstanding, groundings and, yes, collisions.



[NTSB – Freighter Alpena Fire – Dec 2015](#)



## Ladders : Maintaining Your Focus

A wise chief engineer once pointed out during a safety meeting that workplace safety is all about being in the moment and concentrating on the task at hand. It's not always quite that simple, but in terms of ladder use, a little concentration on your part can prevent a little (or a lot of!) pain on your part.

### THE 3-POINT RULE

The climber should always face the ladder and grip ladder rungs or side rails with two hands while bracing with one foot, or brace with two feet and grip with one hand.

Concentrating on the task at hand will also allow you to evaluate the condition of your ladder and platforms. One incident that was reported recounted hearing an unusual "crunch" when a platform was stepped upon. Using the 3-point rule on the ladder, the climber bounced with one foot on the platform only to have it fall several meters to the bottom of the hold! Beware and be aware!



### Shipyards Safety (continued from page 1)

Permits to work and the use of them as more than a check-in-the-box are critical to maintaining safe shipyard operations. While frequently viewed by users as a hindrance to efficient operations, the simple permit to work is an effective communication tool as well as risk identification, assessment and mitigation tool. By routing through the various shipyard and shipboard departments, all are notified of potentially dangerous operations and given the opportunity to provide input.

Many safety managements systems (SMS) require vessel work permits be issued and maintained in conjunction with yard permits. This may be viewed as duplicative, but ensures yard and vessel personnel are on the same figurative page.

SMS are generally robust and consist of well thought out procedures and best practices. One of those best practices is ensuring the good safety culture of the vessel/company continues even with shipyard operations ongoing. Let's be safe out there!

**Maritime Safety +** is a publication of **maddenMaritime** and is written by mariners with a target audience of mariners, designated persons ashore (DPA), safety managers and ISM/ISPS auditors around the world. Our goal is to highlight those issues that might be or become safety issues onboard. We understand that all mariners are on vessels with the simple goal of having a livelihood and then returning home at the end of the voyage with all their fingers and toes. The sources for our information are broad, ranging from personal experience, to P&I Club loss prevention guidance to recent casualties onboard vessels. If you have an incident, idea or sea story that you would like to share, please email us at [MaddenMaritime@gmail.com](mailto:MaddenMaritime@gmail.com).