
IMCA Safety Flashes summarise key safety matters and incidents, allowing lessons to be more easily learnt for the benefit of all. The effectiveness of the IMCA Safety Flash system depends on members sharing information and so avoiding repeat incidents. Please consider adding safetyreports@imca-int.com to your internal distribution list for safety alerts or manually submitting information on incidents you consider may be relevant. All information is anonymised or sanitised, as appropriate.

1 Loss of pressure to diver's primary air supply

What happened

A diver working underwater experienced a pressure drop from the primary HP supply regulator. The diver was recovered safely, and tests were subsequently carried out on the surface, and the same pressure loss was observed. The regulator was removed from the panel, stripped, and inspected. During the removal of the sensing assembly, old/dry lubricant was observed on the bottom end. The sensing assembly was checked by moving the shaft up and down simulating what would occur within the regulator during use. Friction between the shaft and the sealing face was evident, as it would not move as freely during the up and down movements through the sealing face due to the dry lubricant.

The test identified that this sticking would occur when there is light breathing from the diver as there would not be sufficient pressure on the sensing assembly to cause it to move freely up and down regulating the pressure. In contrast, with heavy breathing, there is ample instant pressure on the assembly which would then allow it to regulate the pressure better.

What went right?

- The diving supervisor was vigilant and experienced and observed the pressure drop as it was happening. He was able to manage the primary air supply while recovering the diver without the need to activate a secondary air supply and before any possible dangerous situation developed;
- The technicians on board were able to quickly diagnose and test the issue within a very short time and with the tools available;
- Sufficient spare regulators were available for component-level removal and replacement, allowing diving operations to continue swiftly.

What went wrong?

Whilst there was planned maintenance on the regulators conducted following the requirements of IMCA D018, the regulators did not appear to have had sufficient internal inspection, cleaning, or re-lubrication according to their duty cycle.

What was the cause

The internal lubricating grease had dried and was no longer providing lubrication, rather it acted to restrict the movement of the machined parts.

Lessons and actions

- Diving regulators require more regular checks when in high-use conditions. Regulators should be rotated through high-use (Diver 1/Diver 2) and low-use (Stand by and spare) positions within the system to ensure equal usage.

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- Action taken:
 - Increased planned maintenance schedule frequency for checks, test and cleaning of seal kits, sensors and panel regulators to every 6 months;
 - Tested and cleaned all other regulators on the panel and gas racks flow tested and cleaned, and changed planned maintenance schedule to every 6 months;
 - Keep careful records of lubricant identification and batch number;
 - Ordered newly updated sensors and more seal kits with new and more sensitive sensors;
 - Liaise regularly with manufacturer for any information on new types or upgrades that may be available.



Regulator Body Removed



Top of Sensing Element/Diaphragm



Bottom end of Sensing Element/Diaphragm



Members may wish to refer to:

- Near miss: Foreign body in diver's helmet, resulting in fall of gas pressure
- Near miss: sudden Loss of air from diver bail-out bottle
- *IMCA D 018 Code of practice for the initial and periodic examination, testing and certification of diving plant and equipment*

2 Equipment fell on someone's leg causing injury

What happened

Whilst a worker was moving one piece of equipment, another piece of equipment shifted and fell onto his leg, causing an injury. The person was cleaning the bow thruster room which was also used to store parts. He intended to move a portable submersible pump, but another piece of equipment (an auxiliary engine cooler) located near the pump, shifted and fell against his right leg, causing a minor injury.

However, because the injury was not properly treated immediately, it got worse and required treatment ashore. The incident was only reported to the office three days after the occurrence.

What went wrong

- The bow thruster room was being used as a storage area;
- The auxiliary engine cooler was neither secured nor lashed down;
- The auxiliary engine cooler was used; it was surplus to requirements and it ought not have even been on board;
- The injury was not reported in a timely way.

Lessons learned

- Ensure storage is properly organised:
 - Any loose parts should be well secured.
 - Have a through inventory: if “spare” parts cannot be used anymore or are beyond repair, send them ashore. Don't keep useless material on board.
- Report incidents immediately; treat all injuries seriously and immediately;
 - This incident should have been reported when it first happened rather than three days later, by which time the injury had got worse.
- Further training of all crew was suggested, to raise awareness of the importance of reporting incidents or near misses as soon as they occur.

Members may wish to refer to:

- [Secured material fell against crewman causing injury](#)
- [MAIB: A heavy sheave fell over causing an LTI](#)
- [Infection: a scratched elbow turns into an LTI](#)

3 Electric shock after water ingress to switch

What happened

A shore representative visiting the vessel experienced an electric shock after touching an electrical switch in the steering room. Stop the Work authority was exercised; the electrical switch was immediately isolated and subsequently removed for investigation.

What went wrong

- The switch had been removed from the wall, but not re-installed, during maintenance;
- There had subsequently been engine room washing following major repairs, and the water ingress arose at that time;

Applicable
Life Saving
Rule(s)



Bypassing
Safety
Controls



Line of Fire



Applicable
Life Saving
Rule(s)



Energy
Isolation

- The switch had been unprotected and remained live, not isolated, during the engine room washing.



Appearance of electrical switch to visitor



Electrical switch showing clear sign of water ingress

Lessons learned

- Ensure maintenance work is fully completed before returning equipment or systems to service;
- Arrange appropriate isolation and protection of electrical connections and switches during any washing or cleaning of an area;
- Ensure all parts of the vessel electrical systems and equipment are regularly inspected and tested by a Competent Person and the results recorded in the Planned Maintenance System.

Members may wish to refer to:

- [Electrocution incident – make sure electrical equipment is safe!](#)
- [Damaged Electrical Cable](#)
- [Electric shock due to water in electrical equipment](#)
- [Use of damaged electrical equipment by dock workers](#)

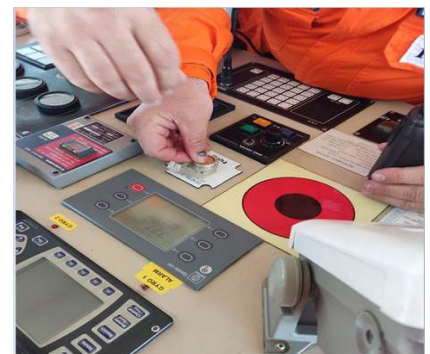
4 Emergency musters and drills

Two of our members have shared recent events relating to emergency drills and musters.

Incident 1 – Emergency button stuck

During an emergency drill, it was found that the General Emergency alarm on the bridge was delayed whilst being activated.

Further investigation revealed that dedicated Emergency button was stuck, and it failed to perform its function in a timely way during the drill.



Lessons

- Check: could your emergency alarm buttons be stuck or seized? When was the last time anyone actually pressed the fire alarm button?

Members may wish to refer to:

- [Failure of remote control/emergency stop on rescue boat winch](#)
- [Unsafe actions and conditions – inhibited alarm buttons](#)

Incident 2 - Near Miss – Smoke at muster station

A fire alarm was set off on the port side muster station where there was a smoking area. An AB and the 2nd Mate were sent to investigate what was going on. On arrival at the muster station there was dense smoke coming from the ashtray stand. The ashtray was opened, and a smouldering paper cup was found, along with recently discarded cigarette butts.



The smoker had, instead of bringing the cup to the dedicated waste bin which is just 10 metres away, just opened the standing ashtray and dumped the paper cup together with the still burning cigarette butt and closed it. This action caused smouldering and a small fire and could have developed into a much more serious situation.

What went wrong

- Personal negligence and not following basic rules;
- In other circumstances and conditions such negligence could have led to a more serious fire.

Members may wish to refer to:

- [MSF: Disposable vape self-ignition](#)

5 Bunker hose damaged during connection

What happened

During offshore bunkering operations, the bunker hose was damaged when it was stretched. A vessel passed the bunker hose to the supply vessel using the crane. The crew of the supply vessel received the bunker hose and tied it off. The crew then noticed possible damage to the bunker hose. The hose was returned and upon inspection it was seen that the outer layer of the bunker hose was damaged. Bunkering was cancelled. The potential further consequences were a possible spill to the environment and delay in operations.

What went wrong

- Both vessels experienced moderate pitching and rolling due to sea conditions;
- The bunker hose was tied off to the supply vessel aft bollard while still connected to the crane on our members' vessel;
- Due to both vessels moving in different directions, and the crane being unable to keep up with lowering or raising the hose in these conditions, the hose was stretched and damaged.



Lessons and actions

- Reviewed risk assessment for this task to identify risk of tying off bunker hose whilst still connected to the crane;
- Ensure that that standing orders for bridge communications include any special conditions between vessels – including not to tie off the bunker hose when connected to the vessel crane, if this can be avoided.

Members may wish to refer to:

- [Positive: Master stopped unsafe fuel transfer whilst vessel alongside rig](#)
- [Parting of hawser and bulk cargo hose during tandem mooring](#)