It is encouraging to see two reports about tugs in this issue, and we commend the reporters who brought them to our attention.

The first report is about a tug’s watertight door which was left open during a harbour towing operation — a situation which should never be encountered but is all too common in practice. In reputable tug companies everyone knows that watertight doors must be closed whenever a tug is operating, and there are signs on all the doors to this effect, but sometimes people forget. This may be because there are other things happening which distract the crew’s attention, or an emergency developing which requires the crew to go in and out of the accommodation at frequent intervals. Whatever the reason, the practice is dangerous and should be avoided.

The second case is more complex, and involves tugs using very cumbersome towing lines, and a crew trying to make them fast at an unsuitable location. The real cause of the problem is poor ship design, so once again we must question the competence of the naval architects who designed the deck layout, and the various surveyors who approved the designs. We must also question why it has taken 12 years for anybody to make a formal complaint. This case would make an excellent topic for discussion at your next safety meeting — how would you deal with the problem if you found yourself in this situation?

We also have interesting reports about the collision regulations, safe working practices in the engine room, a winch failure on a yacht, and our old friend the improperly rigged pilot ladder, so there are lessons in these pages for everyone.

Finally, we reveal details about a new section which will feature in future editions of Maritime FEEDBACK and will be devoted to aspects of pilotage. We will still include regular reports received from pilots, but the new section will contain papers specially written by expert contributors. We hope these will help reduce the number of times pilots are exposed to unnecessary risk, and we hope all our readers will learn from them. Please let us know what you think.

It only remains for me to thank all our contributors who have made this such an interesting edition, and to ask you all to keep submitting your reports — you really can make a difference! Until next time, stay safe.

Tug operations can be hazardous for both tugs and vessels. Read more inside. (image: Danny Cornelissen)
Hazardous towing practice

An account of an unsafe towing practice observed aboard a harbour tug assisting a container vessel during a port manoeuvring operation.

What the Reporter told us:
The photograph shows a tug engaged in towing operations assisting a large container vessel during departure. Despite many incidents in the towing industry where watertight integrity has been the cause of numerous accidents and deaths of tug crews, the crew of this tug failed to exercise proper controls to close and secure the watertight door to the accommodation.

The warnings, training and instructions contained in the tug owner’s safety manual are clear and were understood by all. Unfortunately, on this occasion those warnings, training and instructions were not complied with.

A tug towing with an open watertight door – highlighting the risk of flooding.

Further Dialogue:
CHIRP learned from the reporter that his initial attempts to alert the towing company to this near miss incident had been ignored and his concerns dismissed. However, he felt strongly enough about the issue to submit a report to CHIRP. CHIRP subsequently contacted the DPA who readily engaged with us and confirmed that the photograph did regrettably confirm the report, and that the aft accommodation watertight door may have been open without cause. This was indeed contrary to the company’s safety procedures and industry best practice.

The issue was subsequently raised locally for action and a safety flash was promulgated by the company reminding all tug personnel of the importance of maintaining watertight integrity.

CHIRP Comment:
Tugs are particularly vulnerable to flooding through any watertight opening that might not properly be secured. This is due, in part, to the external forces being applied when towing. Obviously, anyone working in the engine room or below decks is at maximum risk in the event of flooding. The inherent reserve buoyancy of a tug is based on all the watertight doors being closed. Over-familiarity and complacency are insidious and are always waiting to catch the unwary.

It is appreciated that tugs operate with a small crew, but the question was asked if the SMS needs to be re-examined in case crew members have to multi-task and move frequently through the watertight door. The best SMS in the world is only as good as the people who operate it. The end users need to be positively encouraged to take ownership of the SMS and not view it as something imposed from above.

Re-examination of the SMS to see if it is fit for purpose applies to all commercial vessels. Too often the SMS is produced by the office ashore and put onto the ship with minimal input from the seafarers onboard who have to operate the ship whilst complying with the requirements of the system.

Unsafe tug securing arrangements

A report from a large container ship highlighting difficulties securing tugs in a specific port.

What the Reporter told us:
My container vessel regularly calls at a container terminal in a specific port where, during mooring operations, we often experience problems taking the tug’s line.

The problem is that the line presented by the tug is of such a size and weight that it is impossible to take the line by hand. In addition, the panama lead and bollards preferred by the pilot and tugs are remote and not accessible from any of our mooring winches.

The pilots and tugs are extremely reluctant to make the tugs fast at the vessel’s mooring stations fore and aft, where the mooring winches could be used to lift the tug’s line. We have only been able to convince the pilots/tugs to make fast with the winches at the mooring areas on very rare occasions.

The current stop-gap solution is to use a small portable gasoline powered winch, which was originally used for forestry and moving logs, to lift the tug’s line. These small winches have a rated pulling capacity of 770 kg but in practice they are unable to safely hoist the tug’s lines due to the lines large and heavy construction. The eye splice is approximately 25cm in diameter, with chafing rope served around the eye which makes it particularly inflexible. When attempting to bring this eye through the panama chock it must be squeezed through, which drastically increases the tension on the messenger line and on occasions requires crew members to lean outboard in an attempt to feed the eye through the panama lead - which is obviously unsafe.

Regrettably, as the tugs and pilots refuse to make the tugs fast where ship’s winches are installed, we are forced to continue to use the small winch which presents a myriad of safety concerns.
On the part of the tug company and the pilots, there seems to be little concern given to the safety of the ship's crew making fast the line. They have to lift a line that is much too heavy and lift it in an area of the ship that was not designed for lifting lines. There should be some regulation governing the maximum size and weight of a tug line that a ship's crew are expected to manhandle. If large tug lines continue to be used, then they should only be used where there is suitable mechanical lifting capacity.

Our operating company would like to solve this problem, but it has proven difficult, as the root of the issue lies with the weight of the line and the placement of the tug which is at the advice of the pilot and tugboat operator. My company is investigating adding machinery to the vessel, but this will take years and might not work at all. Any Master refusing to take a line from a tug due to safety concerns would feel exposed to criticism for exposing the vessel to additional risks during berthing.

Further Dialogue:
The reporter supplied extracts of the vessel’s General Arrangement plan and other information at CHIRP's request. Discussion highlighted the following issues:

- design issue – the ship was built with panama fairleads and mooring bitts in remote locations not serviced by any appropriate mooring machinery.
- the size of the tugs mooring lines in this terminal exacerbated by the fitting of chafing lines served around the eyes further add to the overall diameter and weight of the lines.
- the lack of flexibility of the tugs line when trying to pass it through the panama fairlead and turn 90° at the fairlead to secure on the bitts.
- the insistence of pilots and tug operators to make fast at specific fairleads rather than at ones serviced by appropriate mooring equipment.

The design issue is for the company to address but that will take time, as the reporter noted. Equally, trying to change the size and arrangement of the tug’s line is not in the vessel’s immediate control. However, the vessel can refuse to take tugs at the problem locations on the grounds of safety. The precedent already exists “We have been able to convince the tugs/pilots to make fast with the winches at the mooring areas, but only occasionally.”

CHIRP suggested a formal risk assessment be carried out on board, duly signed off and stamped by the master with a copy forwarded to the company. The company could confirm the findings of the risk assessment and write to the port, vetoing the use of the upper deck chocks by all agents. The issue with making the tugs fast should be fully highlighted at the Master/Pilot information exchange.

CHIRP Comment:
The members of the Maritime Advisory Board noted the following:
- lack of suitable winches at these locations is a basic design issue which can be resolved over time but that will not solve the problem for the crew presently on board.
- if the company is fully aware of the problem, the members were disappointed with the idea that captains would feel exposed to criticism for refusing to take a tug's line at those locations on the grounds of safety.
- risk assessments carried out on board are your friend. If a formal risk assessment for a specific task deems it unsafe and there are no practical mitigating actions available, then that task should not be undertaken. It would be unwise to override the risk assessment unless new mitigating actions or equipment were made available.

- the portable gasoline powered winches are not suitable for the task and should not be used.
- crew members leaning outboard to manhandle the eye of the tug's line while the messenger is under tension is simply not safe.
- if a task cannot be done safely it should not be done.
- most ships have towage plans. Armed with a formal risk assessment these can be amended even for a specific port. Seal up the panama leads prior to arrival at the specific port. The leads can also be marked as ‘not for harbour towage’.
- there are lighter tug lines available on the market, but the board members recognised that the reporter’s company has no direct control over the tug operators.
- going back to basic design issues, a ship of nearly 300m length needs robust tugs and mooring lines.

Nowadays it is unreasonable to install panama leads and bitt sets suitable for those lines without a mechanical winch or capstan to handle them. The days of hauling ropes hand over hand should be over. As vessels increase in size, ports need to adapt in order to accommodate them. This report is a classic example of traditional procedures not being updated to serve modern needs.

Inappropriate time to leave the bridge

Whilst sailing from a port in adverse weather conditions, a tanker in ballast collided with a channel buoy. The pilot had departed from the bridge beforehand to facilitate an early disembarkation because of the bad weather.

What the Reporter told us:

Upon completion of cargo discharge, a pre-departure bridge team meeting was held, and navigation equipment tested. The Master/Pilot exchange was carried out in line with company standing instructions.

The vessel departed the berth and proceeded to sea. Bridge manning consisted of two pilots, the Master, Chief Officer, OOW and the helmsman. The pilotage from the berth to the fairway buoy was just over three hours.

The channel at the seaward end is nominally 250m wide with a heading of 180°. Pairs of buoys are spaced every mile with a further mile from the final pair (No 1 buoys) to the Fairway buoy.

As soon as the vessel passed No.2 buoys the pilot informed the bridge that he would get off after the first set of buoys and before reaching the fairway buoy. The weather at the time was wind easterly 30-35kts gusting 50kts and the swell was reported as 2-3m. The pilot advised the vessel to make a course of 221° after passing No.1 buoys in order to provide a good lee for a safe pilot disembarkation.

The OOW left the bridge in order to assist the pilot, while the Master and Chief Officer remained monitoring the vessel’s movement in the channel. No one replaced the OOW.

Once the pilot had left the wheelhouse, the bridge team realized that the vessel was drifting and getting closer to buoy No.1 to starboard. To counter the drift, the helmsman...
was ordered to alter the wheel hard to port, but as the vessel started developing port swing the wheel was then ordered hard over to starboard to counter the swing and maintain a course parallel to the buoy.

Our vessel slowly responded and swung to starboard. The bow passed clear of the buoy but No.1 buoy struck our starboard side, where it fouled and was dragged along at the ship’s side for 2.5 miles before coming free.

It should be noted that:
- vessel hit the buoy whilst pilot was still on board but not on the bridge.
- after hitting the buoy, the pilot did not return to the bridge.
- the pilot was disembarking early because of the weather conditions.
- planned speed for the pilot transfer was 6.5kts.
- vessel was able to proceed on passage without delay. A subsequent in-water survey found only minor propeller damage which did not affect the vessel’s operational capability.

Lessons Learned:
- the pilot should hand over the conn in a safe navigational position with ample time for the next manoeuvre.
- the Bridge Team should intervene immediately when the pilot’s instructions may place the vessel in a hazardous situation.
- any risk assessment should take into consideration the effect of current and wind as well as the time required to conduct the task.
- cross verification of buoys and other navigational marks with radar should be carried out to ascertain the present position and leeway.

CHIRP Comment:
The Maritime Advisory Board discussed this report extensively. There are many lessons to be learnt from this incident with some of the comments below being rhetorical questions where specific answers were not available:
- did the vessel sail in marginal conditions, in which case was the early departure of the pilot planned at the master / pilot exchange before sailing or had the weather deteriorated during the lengthy pilotage resulting in a deviation from the pilot’s standard operating procedures? If it was the latter, a revised risk assessment should have been carried out. The pilot has a responsibility to hand over the conning of the vessel safely having due regard to the prevailing conditions.
- there were many references to the bridge team and the pre-sailing bridge team meeting, which is good, but the master is part of the bridge team and whilst the master is on the bridge it should be he who challenged the pilot if there were any concerns about the prudence of the pilot getting off early.
- it is presumed that all members of the crew were suitably rested and although no reference to fatigue was mentioned in the report, the MAB noted that during cargo operations on tankers the chief officer tends to work extended hours and might be more fatigued and therefore less alert than normal.
- there appears to be a loss of situational awareness by the bridge team when both the pilot and the OOW left the bridge at the same time. The master needed to ensure that someone was navigating at all times and that there was continuity even when members of the bridge team left the bridge. Additionally, the act of reducing speed from full manoeuvring to 6.5kts for the pilot’s disembarkation would have affected the vessels leeway and reduced the vessel’s responsiveness to the helm. Both of these facts appear to have been overlooked by the remaining members of the bridge team. Regardless of the prevailing conditions and for the sake of a mile, was it necessary or prudent for the pilot to leave the bridge at this stage to facilitate an early departure? Hopefully this was a lesson learned by the pilotage authority.

Winch sheared
A sailing yacht suffered a winch failure whilst hoisting the mainsail when departing harbour.

What the Reporter told us:
After leaving harbour the mainsail was being hoisted under normal load when the mast halyard winch sheared off its mounting. Closer examination of the winch identified that the centre stem casting had failed.

The winch, which was manufactured by a well-known name in yachting, is only 3-4 years old and, furthermore, the boat is only used for fair weather cruising - never raced.

Since use of the main mast halyard for man overboard recovery is a recommended practice, a failure such as this could have been catastrophic. Further, we were informed that the winch has never been subject to heavy load or severe shock.

Further Dialogue:
CHIRP learnt that the incident had occurred one month prior to the report being submitted. Initially the reporter had corresponded with the winch manufacturer who had offered to send the failed component away for engineering analysis with the proviso that if there was no fault found with the casting then the reporter would be liable for the costs involved, a sum in excess of £1,500. The reporter declined the offer but advised the manufacturer that as it was a safety concern, he would be submitting a report to CHIRP to see if his was an isolated incident or not.

Subsequently the reporter received a further e-mail from the manufacturer stating, “that although they have a very low failure rate of these winches, on this occasion as a gesture of good will they would send the reporter a new replacement centre stem”. This was duly done.

Meanwhile CHIRP sought expert advice and opinion as to the failure – it was confirmed that similar failures had...
not been reported and were thus unknown. In addition, the manufacturer was indeed well respected for the quality of its products.

**CHIRP Comment:**
Members of the MAB raised the following points concerning this report:

- leisure boat construction, including equipment and fittings, cannot be presumed to be as robust as commercial vessel construction. A deep-sea vessel built to Lloyd’s classification will have each aspect of the construction inspected and signed off by a Lloyd’s surveyor. Equally, all class machinery and equipment installed will be individually inspected and approved. In the case of leisure craft, many are self-certified by the manufacturers themselves. Much of the equipment is bought in, with the components being fabricated on a batch and line QA process – the components are then assembled during final installation of the craft.
- it was noted that the MCA are reviewing the current Leisure and Pleasure Boat Code.

In addition to using the main halyard and winch for recovery of a man overboard in an emergency, it is also a common practice to utilise masthead halyards and winches to hoist crew members aloft for routine work. In the latter cases it is recommended that two lines are utilised, one to hoist aloft and the second as a safety line.

### Where is the responsible officer?

**This report concerns a large cruise liner operated by one of the major passenger ship operators departing from port. The reporter in this instance was the disembarking pilot.**

**What the Reporter told us:**
The pilot ladder presented for pilot disembarkation was not rigged in accordance with SOLAS regulations.

A metal bar had been placed between the ladder side ropes which relied solely on the whipping on the chocks to hold the weight of the ladder and the pilot. The side ropes were left on the deck and not secured to anything. I refused to use the arrangement and provided advice to the crew to correctly rig the ladder. There were strong points provided at the head of the side door where the manropes had been secured. In view that there were no other strong points provided, the pilot suggested that this would be a better securing point for the side ropes of the ladder. At first the crew informed me that they always rig the ladder in the presented manner, that it was safe and there were no issues with it. After some discussion the crew eventually re-rigged the ladder so that the weight of the ladder was carried through the side ropes in line with SOLAS regulations. The manropes provided were left with a large knot at termination which would prove a snagging issue to the pilot boat should it roll. There was also a pre-rigged orange line to a lifeboat/tender which impinged over the pilot ladder spreader bar, (photo below from pilot boat shows this). After disembarkation the pilot reported to the vessel via VHF that they should review their pilot ladder arrangements to ensure compliance with SOLAS regulations.

The crew showed no awareness of the SOLAS requirements for correctly rigging a pilot ladder. There was no officer overseeing the operation, only two AB’s and a security team member who had escorted me from the bridge. This is a common issue on cruise ships where it is very rare for a deck officer to be present for pilot transfer.

### Further Dialogue:
The reporter confirmed he had also reported the matter to the port and national authorities. CHIRP in turn contacted the company who investigated the incident. This resulted in the DPA issuing a Company Circular Letter to the fleet entitled “Pilot Transfer Arrangements – “Safe Rigging of Pilot Ladders”.

The Circular Letter also included an annex applicable for certain classes of vessels which illustrated modifications required to be carried out at the next available opportunity to allow those vessels to comply with the requirements of the circular letter and, more importantly, SOLAS and IMO requirements.

The necessary elements and fittings required for these modifications would be supplied directly to the vessels concerned without need to raise a requisition.

The company asserted that the member of the security team who escorted the pilot down from the bridge to the pilot embarkation point was a responsible officer – this may be challenged since he did not intervene in the discussion between the pilot and the crew as to the correct rigging of the ladder.

**CHIRP Comment:**
The Maritime Advisory Board found it worrying that it fell to CHIRP to address this fundamental issue. If some of the company’s vessels required actual modifications to comply with the SOLAS and IMO requirements it begs the question what are the classification societies and flag state authorities doing?

Nevertheless, once the company were made aware of the non-compliance highlighted in the report, their positive engagement and response was encouraging. However, the question should be asked why none of the ship’s officers and crew had made the company aware of the ship’s inability to provide a compliant pilot transfer arrangement?

Since the pilot transfer arrangements come under SOLAS the whole safety culture on board must be questioned.

With respect to the security personnel escorting the pilot, the regulations require the transfer of a pilot to be overseen by a responsible officer and in this context the definition of a responsible officer is a certificated officer or a person of appropriate training. Overseeing of the pilot transfer by a member of the security team is good utilisation of available manpower provided they are suitably trained to carry out that role.
Can I have a permit?
An engine room rating was assigned a task in the machinery spaces. He requested a permit to work for working at heights and asked for scaffolding to be erected to allow safe access. The Chief Engineer refused to issue a permit. Relationships rapidly spiralled downhill.

What the Reporter told us:
I am assigned as an engine fitter and was told to do a job in the engine room but there was no proper permit for the job or proper safety requirements like scaffolding. When I refused to do this job, the Chief Engineer charged me with refusing to work and told me I would be relieved at the next port. I am currently excluded from engine room duty.

Further Dialogue:
The reporter was six months into a nine-month contract and had previously worked on the ship. The job in question was the installation of a new steam condenser and fuel coolers with associated pipework and brackets - it involved working between 2m and 5m above the engine room deck plates.

Apparently, the reporter was summoned to the bridge for a hearing / investigation at which he was found guilty of ‘insubordination, incompetence and inefficiency’ and summarily dismissed with repatriation at his own expense from the next port.

The correspondence from the reporter highlighted other concerns, many of which were outside CHIRP’s remit – the main safety concern was the reported poor safety regime in the engine room. For other issues, it was obvious from early in the correspondence that the situation onboard involved several separate but interrelated issues, and further that onboard relationships had completely broken down.

The reporter mentioned that the owner of the ship also owned two other vessels and that on each ship 4 or 5 crew on a ship where deliberate acts of pollution were allegedly carried out on a nightly basis.

MARPOL – reported deliberate pollution
Report received from a member of the engine room crew on a ship where deliberate acts of pollution were allegedly carried out on a nightly basis.

What the Reporter told us:
I have observed every MARPOL violation on my ship. At night, the crew throw overboard every kind of waste oil, sludge, bilges, used rags and other garbage including plastic and cans. The oily water separator and incinerator do not work, but at annual surveys they manage to pay a bribe to the surveyor for clear reports. Chief Engineer told to do these things as ordered by the Master. I have proof of crane waste oil being dumped in the Black Sea.

The reporter further stated that a large fee had been paid by himself to a seafarer’s employment agency to secure his berth on the ship.

NOTE: The reporter’s vessel is on both the Paris MOU Black List and Tokyo MOU Grey List, (indicating a flag with a high detention rate following inspection, and being considered high risk), and was trading in the eastern Mediterranean and Black Sea. There was a photograph attached to the report, but it was inconclusive – whilst there was obviously some pollution astern, there was nothing to identify the vessel.

Further Dialogue:
The reporter mentioned that the owner of the ship also owned two other vessels and that on each ship 4 or 5 seafarers from his home country had paid up to $8000 for a berth and were being used as oilers and wipers rather than in their designated positions. The reporter was very concerned about his safety and that of the other seafarers on board the three ships.

CHIRP advised the reporter that seafarer’s welfare and financial abuse issues were best dealt with by the ITF and ISWAN and offered to pass on his report to either or both organisations but only with the reporter’s express instruction, which in this case was not given.

CHIRP contacted the flag state administration of the reporter’s ship and received an immediate response. Subsequently the administration notified CHIRP that one of their inspectors attended the named vessel and carried out an inspection to ascertain the validity of the report. The inspection found no evidence to support the reporter’s allegations and in every way the vessel appeared to be operating in compliance with the appropriate rules and regulations.

CHIRP Comment:
The members of the MAB noted the following:
- the prompt and positive engagement by the flag state administration should be highlighted and commended.
Collision Regulations – Rule 15 non-compliance

A report received concerning non-compliance when two vessels were approaching a major port.

What the Reporter told us:
My own vessel (A) was proceeding westerly at 11kts with the other vessel (B) proceeding WNW at 11kts to the south and just forward of my beam. Her CPA was fluctuating between 0.2-0.35nm ahead. This was a crossing situation with my own vessel as the stand on vessel.

Both vessels had reported to the Vessel Traffic Service stating their intention and were listening on VHF Channel 12. As the TCPA approached ten minutes with a CPA of less than 0.25nm, I contacted vessel (B) on Channel 12 and asked his intention - he suggested that I alter course to port. I told him I would not be doing that and intended to halt the conversation there and abide by the regulations. Vessel (B) then questioned why I wouldn’t alter to port and under which Rule, which concerned me slightly.

I contacted the VTS who I expected would have wished to intervene as we were in their VTS area - they suggested I make a bridge to bridge communication with the other vessel. I then made a bold reduction in speed, which by my action alone avoided the close quarters situation and risk of collision, allowing the other vessel to pass well ahead. Rule 15 situations involving converging courses with a risk of collision seem too often to result in the give way vessel being reluctant to meet her obligations. This is something I regularly find working in the Dover Strait and English Channel. The fact that this was in pilotage waters and will be supported by the VTS recordings, should you wish to obtain them, prompted my submission. I regularly see the give way vessel not taking action in crossing situations with vessels on similar courses and speeds and hope that your publication will be able to raise awareness of the issue.

Further Dialogue:
The VTS were contacted and, quoting the date and time of the incident, a request was made for any available records of the incident. The VTS were most helpful and provided a video recording of the VTS radar image. Unfortunately, there was no recording of the VHF channels available.

CHIRP Comment:
After discussion the members of the MAB noted the following points:
- this was a classic converging vessel situation.
- the encounter took place in daylight which added to the ambiguity of the situation. At night the cut off angles of navigation lights would have added clarity to interpreting if this was a crossing situation or an overtaking situation.
- vessel A interpreted the situation as crossing vessels governed by Rule 15.
- it is possible that Vessel B construed it to be an overtaking situation governed by Rule 13(a)
- if the above points are correct, then both vessels by their own interpretation of the situation were the stand on vessel.
- whatever the case, as the vessels drew closer both would have been governed by Rule 17(a) (ii) and ultimately by Rule 17(b).
- in the above report, vessel A acted under Rule 17(a) (ii) and complied with Rule 17(c)
- whatever the situation Colregs should work, even if a vessel fails to comply with a rule or misinterprets a situation.
- it is refreshing to note that the avoiding action taken in this case was a significant reduction in speed.

H2S incident
The following report highlights a near miss with H2S

Initial Report:
A tank inspection was being carried out on board a tanker on completion of discharge. The inspection involved the Chief Officer, cargo inspector and an AB – they were checking tanks with a portable (closed type) gauging tape, which is achieved through a vapour lock arrangement.

At 5P COT the AB opened the vapour lock valve without checking if the cap was securely screwed on or manually holding the cap in place. The inert gas pressure inside the tank (about 500mmwg) ejected the cap and detached it from the safety chain to a height of about 50cm, nearly hitting the AB in the face and releasing cargo vapours on deck with H2S content of 700ppm. Fortunately, nobody was injured.

CHIRP Comment:
The members of the MAB noted the following points:
- the dangers of H2S are well known. Equally H2S and carelessness are not a good combination
- this simple act of carelessness very nearly resulted in an injury and could easily have proved fatal. One breath in and a person could be unconscious with that level of H2S.
- a surveyor was killed some time ago carrying out a similar operation when he took one breath of air contaminated with 2000ppm H2S.
- allowing the IG pressure to reduce towards the end of
the cargo operation would have reduced the hazard of this incident and reduced the potential for pollution.

- there were three people involved in the tank inspections. If they had worked as a team there could have been better monitoring, and if they were dealing with two tanks at once then adding an extra person would have aided oversight and probably have prevented this incident.

Pilots corner

By far the largest number of reports received by CHIRP Maritime originate from marine pilots, so the members of the MAB have approved a new section for each issue of Maritime FEEDBACK. Regardless of any specific reports concerning pilot boarding arrangements and pilotage issues featured in the main body of each edition of Feedback, there will be a separate article about pilotage. Written by a member of the CHIRP editorial team or by a guest writer, the piece might discuss a specific report, a compilation of reports, or might be a general article on good practice.

Why do pilots submit more reports than other seafarers? The reasons for this are varied but:

- whilst the average seafarer may join a small number of different ships every year, a pilot can join or leave many different ships in a week or in a single shift cycle.
- pilots have a focused view of things - when your eyes are only 45cm from the rungs of a pilot ladder you are quite focused.
- pilots are independent, even detached. They feel no reticence about reporting a defect, deficiency or anomaly which reflects badly on the ship or crew. Their sole concern is safety, of themselves and future pilots who are going to board or disembark from the ship using the same pilot boarding arrangement.

Reports suggest that one in five pilot boarding arrangements do not comply with SOLAS requirements and are potentially unsafe, which makes being a marine pilot potentially one of the most hazardous occupations at sea. If you are involved with pilot boarding or disembarkation in any way, ask yourself these questions:

- is there a copy of the IMPA Pilot Boarding Poster on board, on the bridge and where the pilot ladders are stowed?
- when was the last time you read it?
- do you know the correct way to rig the pilot boarding arrangements on your ship - not just the way that it’s always done, but the correct way?

* The IMPA Pilot Boarding Poster is available to download in English, Chinese, French and Spanish from the IMPA website www.impahq.org/downloads.php. A laminated version is also available to buy from Witherby Seamanship https://www.witherbyseamanship.com