The Swedish Club

MONTHLY SAFETY SCENARIO

APRIL 2021

Misdeclared container caused fire

It was early morning and from the bridge the Master saw a large cloud of smoke issuing from the forward part of the vessel. At the same time the fire detection system for cargo hold 3 sounded on the bridge. The Master described the smoke as being white at first and then greyish. The Chief Officer, however, described the smoke as being 'dark grey, almost black'.

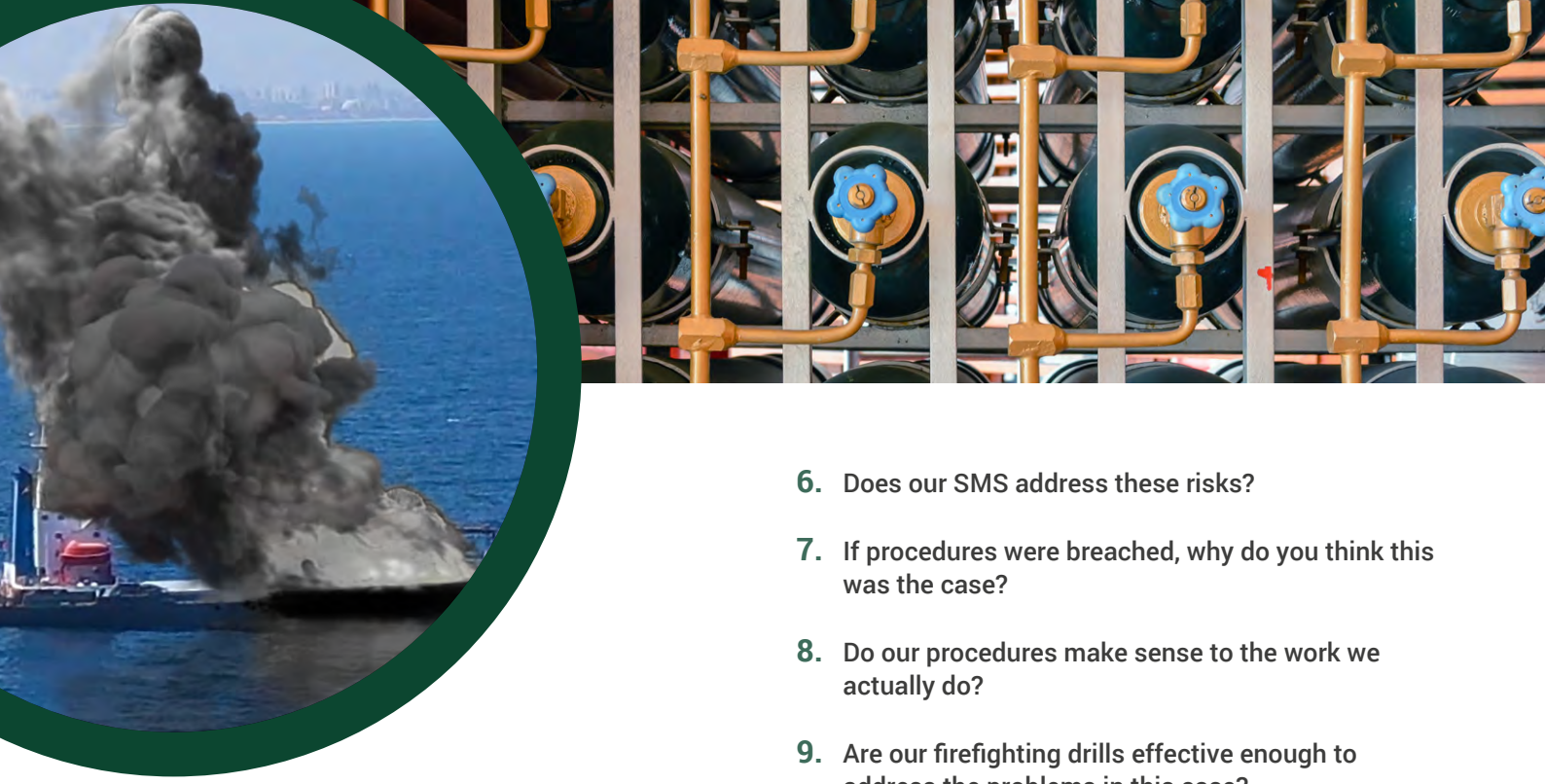
The ventilation fans for the cargo holds were stopped. The fans for cargo hold 3 were not operating at that time but natural ventilation was being provided for the holds as the covers for the vents were open. Crew members closed the covers of the vents for cargo hold 3 and no crew member entered the cargo hold.

Meanwhile the Master navigated the ship to a nearby anchorage. After various checks had been performed, the Chief Engineer released the contents of almost 200 CO_2 cylinders into cargo hold 3. This discharge was the designated full complement of CO_2 required for the hold, and appeared to extinguish the fire. A couple of hours later smoke began to issue from the hold and a further 50 CO_2 cylinders were released into cargo hold 3. About six hours later smoke was observed issuing from cargo hold 3 and the Chief Engineer released a further 50 CO_2 cylinders.

Salvors boarded the vessel the following morning. Shortly before midnight, temperature checks were completed by the vessel's crew indicating that the temperature in cargo hold 3 was rising so five more CO_2 cylinders were released. In the morning another 20 CO_2 cylinders were released. The salvors entered cargo hold 2 and measured the temperature for the bulkhead to cargo hold 3 - it was 80°C. It was decided that cargo hold 3 should be filled with water from the fire hydrants.

The water filled up three container tiers and after a couple of hours the salvors considered the fire to be extinguished.

The container where the fire started was not declared as dangerous cargo, but in fact was actually loaded with



calcium hypochlorite and had been misdeclared by the shipper. The charterer had loaded the container as per the rules of the IMDG code. As per the manifest, the container was allowed to be loaded in the cargo hold, but as the cargo was calcium hypochlorite it should not have been loaded below deck or in the position it was stowed in.

Questions

When discussing this case please consider that the actions taken at the time made sense for all involved. Do not only judge but also ask why you think these actions were taken and could this happen on your vessel?

1. What were the immediate causes of this accident?
2. Is there a risk that this kind of accident could happen on our vessel?
3. How could this accident have been prevented?
4. What sections of our SMS would have been breached if any?
5. Is our SMS sufficient to prevent this kind of accident?
6. Does our SMS address these risks?
7. If procedures were breached, why do you think this was the case?
8. Do our procedures make sense to the work we actually do?
9. Are our firefighting drills effective enough to address the problems in this case?
10. Do we have sufficient firefighting equipment to deal with a situation like this?
11. What do you think was the root cause of this accident?
12. What preventive measures do we take?
13. Is the work permit and risk assessment easy to fill out?
14. Do the work permit and risk assessment make sense for the work we are doing?
15. How can we improve our work permit and risk assessment?
16. What would you do to solve the problem of misdeclared cargo?