The Swedish Club

MONTHLY SAFETY SCENARIO

NOVEMBER 2024

Incorrect declaration caused charcoal fire

The vessel, a container ship, was sailing in open sea. It was afternoon when smoke was seen coming from the vent of one of the cargo holds. The Master sounded the general alarm and all crew were mustered and accounted for.

A fire team was assembled and proceeded to shut off the ventilation and close the fire dampers for the cargo hold. An access hatch cover was opened for the group to enter the cargo hold but it was full of smoke and there was no visibility, so the fire team turned back and closed the hatch.

The Master decided to release CO2 into the cargo hold and the vessel turned back to its last port of call. After the CO2 had been released, smoke could still be seen coming from the cargo hold, but it was less than before. The crew could not find any hot spots on deck.

The crew inspected the adjacent cargo hold to see if there were any hotspots or discolouration. They could not find any. Once the vessel berthed, the local fire brigade embarked and confirmed that the fire was extinguished.

The cargo manifest did not show any dangerous cargo loaded in the affected cargo hold. However, it was found that the container that caught fire was loaded with charcoal. The shipper had not declared the charcoal as IMDG dangerous cargo. It was later confirmed in laboratory tests that the cargo should have been classed as dangerous cargo as per IMDG code class 4.2.

The IMDG Code for charcoal, if it applies, requires adequate heat treatment and then cooling of the charcoal before packing. This is to reduce the charcoal's reactivity by allowing it to oxidise under controlled conditions.

Charcoal may not be subject to the IMDG Code, however, if it passes a UN test for self-heating, thus indicating that it is not too reactive. This exemption requires correct sampling,

testing and certification and it may assist to check the relevant documentation. This had unfortunately not been done correctly in this case.

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 fire could happen on our vessel?
3. How could this fire have been prevented?
4. What sections of our SMS would have been breached if any?
5. If procedures were breached, why do you think this was the case?
6. Do our procedures make sense for the work we actually do?
7. Is our SMS sufficient for preventing this kind of accident?
8. Does our SMS address these risks?
9. Do we have training exercises for how to fight a fire starting in the cargo hold?
10. What are the biggest risks for a cargo fire starting on board our vessel?
11. Are our firefighting drills effective enough to address these risks?
12. Is everyone aware about how the CO2 system works on board, or any other fixed firefighting system?
13. Do our procedures make sense in terms of the work we actually do?
14. What can we learn?