

MONTHLY SAFETY SCENARIO

JULY 2023

Chief Officer fell to his death during tank inspection

The tanker was berthed alongside and discharging cargo. On completion the following morning the crew began to clean the cargo tanks.

The Chief Officer was in charge of the tank cleaning operation and was giving orders to the Second Officer in the control room and two ABs who were cleaning the tank on deck. One AB worked in the deck trunk and the other was handling and monitoring the tank cleaning machinery on the tank deck.

The Chief Officer's responsibility was to ensure that the tank cleaning was carried out safely and that the tanks were cleaned properly. He visually checked that the tanks were clean by taking a couple of steps down the tank access ladder and looking down the tank while lighting it up with a flashlight. While doing so, the Chief Officer did not wear a fall arrest harness.

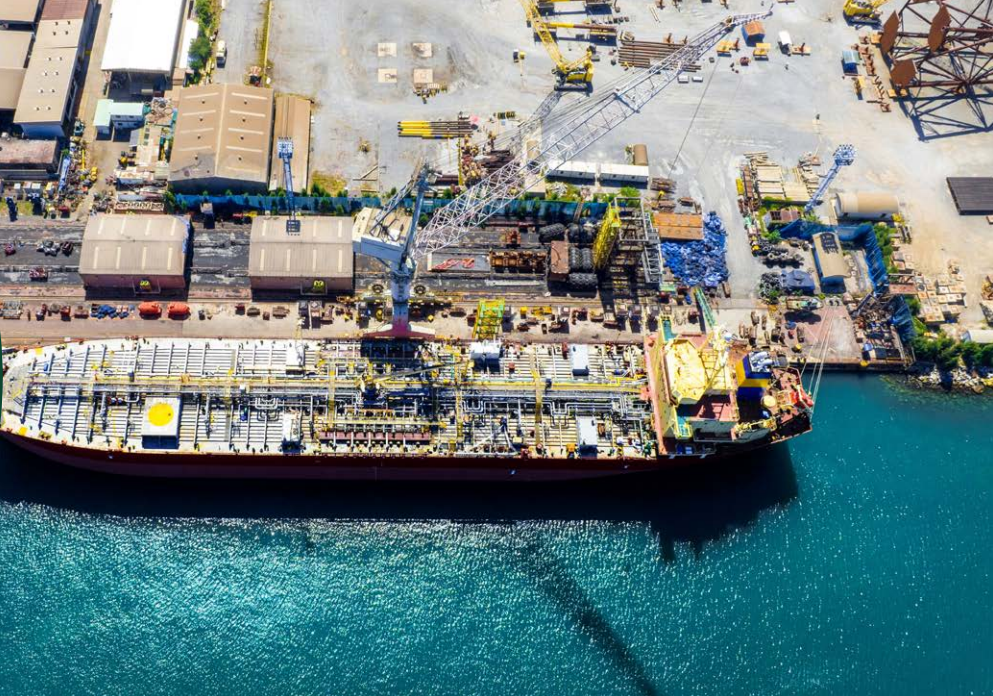
As the ABs and the Second Officer were busy carrying out

their own tasks, none of them were aware of whether the Chief Officer measured the levels of oxygen and toxic gases in the tank atmosphere before he started visually checking them.

After a while the OOW in the cargo control room noticed the Chief Officer's absence, as he didn't answer on the radio; so he told one of the ABs to search for him. When the AB looked down into one of the tanks from the hatch opening he spotted the reflective striping on the Chief Officer's boiler suit at the bottom of the tank near the end of the ladder.

The Master was informed and hurried to the tank and ordered the crew at the scene to fetch a stretcher, oxygen kit, and breathing apparatus. He put on the breathing apparatus and entered the tank, finding the Chief Officer severely injured and unconscious. The Chief Officer had fallen from a height of 10 meters. The Master fastened a harness onto the Chief





Officer, and the crew on deck hoisted him up. First aid was immediately given, and the Second Officer contacted the terminal asking them to call the emergency coordination centre.

One hour after the Chief Officer had been evacuated, the Master monitored the atmosphere in the tank. The gas monitor went up to its maximum 100pp of hydrogen sulphide content.

The Chief Officer was pronounced dead at the hospital.

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. What are the procedures when we carry out tank/cargo hold inspections?
4. Is the atmosphere always tested?
5. Is it mandatory to carry an appropriate atmosphere testing instrument?
6. Is this equipment sufficient?
7. What PPE is required?

8. Is it easy to secure a fall arrestor when climbing down a ladder into one of our tanks/cargo holds?
9. Do we have a risk assessment on board that addresses these risks?
10. Is the required PPE included in our work permits and risk assessments?
11. How could this accident have been prevented?
12. What sections of our SMS would have been breached if any?
13. Is our SMS sufficient to prevent this kind of accident?
14. If procedures were breached why do you think this was the case?