

Severely burned crew member died

The oil tanker was in port loading when it was discovered that a valve was leaking in the pump room, so loading had to be stopped. Because of the leakage, the pump room was full of explosive gas. The Master informed the terminal that loading had to be stopped.

The Master informed the superintendent who told the Master to ventilate the pump room. It was decided that the cargo that was still in the lines should be put in the slop tank.

The broken valve was in a difficult position as it was close to the bulkhead. The crew could not fix this with their tools, so a contractor was arranged to come onboard to do the repairs. The superintendent decided that the vessel should depart for the next port for loading where the contractor would embark. The crew started to ventilate the vessel. When the gas in the pump room was below 1% LEL (Lower Explosive Limit) the crew began to wash down the pump room and also lowered a portable water pump in the room to pump out the water. When this was completed, a hydraulic water-powered fan was put in the pump room to dry it out, and the crew started to clean up the leaked cargo.

Later that evening, the chief officer was resting before the arrival in the next port. The Master had taken the chief officer's watch to let him rest. The schedule was tight, and the crew would not get much rest before arrival. The fans in the pump room had to be moved so they could dry out the entire room before arrival. The AB on the watch didn't want to wake up the chief officer and bosun to move the fans, so he went to the engine workshop and got a portable electric fan which was lighter. He put it in the pump room for ventilation.

After an hour or so, he came to move the fan into one of the corners which were not completely dry. When he plugged in the fan, there were some sparks which ignited the combustible gas which was in a pocket of the corner. The gases severely burned the



AB who managed to run out of the pump room to the emergency shower and extinguished himself. The Master could see this from the bridge and started the general alarm.

The AB was taken into the vessel's hospital and given treatment. The Master contacted medical assistance and proceeded with full speed to the nearest port. The coast guard dispatched a large rescue boat cutter to pick up the AB.

The AB was taken to the hospital with severe burns. After several months of treatment, he unfortunately died. ■

Discussion

Go to the "File" menu and select "Save as..." to save the pdf-file on your computer.

You can place the marker below each question to write the answer directly into the file.



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. Do we have a risk assessment for this kind of job?

5. If we do, could this risk assessment be improved?

6. Is a work permit required?

7. How do we ensure that we do not use unapproved equipment during critical operations?

8. Is there any kind of training that we should do that addresses these issues?

9. What sections of our SMS would have been breached if any?

10. Does our SMS address these risks?

11. How could we improve our SMS to address these issues?

12. What do you think was the root cause of this accident?