



Marine Safety Forum – Safety Flash 15-22

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Subject: Vent Pipe Clogged

Event Description

Following a FO transfer, the sounding plug for FO Tank #1 was opened in order to take a completion sounding. During this operation, a strong incoming air flow was observed from the sounding pipe. This indicated that the tank was under vacuum.

Having this in mind, the opening of FO vent head, including spark arresting wire mesh, was inspected for defects. This did not show any malfunction and the vent head / floater / seals / mesh were found to be good condition.

To further investigate, the complete vent head was removed and a blockage was observed in the vent pipe at the first elbow, approximately 1.5 meters below the deck level. It consisted of large rust scales and hardened dust. (Please see photographs below). Due to this discovery, FO tank #2 was inspected and found to be in a similar, although to a lesser extent, condition.



The capacity of FO transfer pump is 2 x 50 m³/hr, which is significant considering the size of the tank. However with the amount of vacuum it created, it is obvious that the vent pipe was blocked and there was no air relief at all.

This incident could easily lead to serious damages to the FO tank / hull construction if it had not been discovered.

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Findings / Root causes:

The design of the vent had sections that were vertical, horizontal, and then another near vertical. See photo.

- It had not been recognised that, although the exterior of the pipe was in good condition, there would also be a necessity to open and inspect the inside of the pipe. That was not done.
- Over several years, rust and scale had accumulated in the vertical section, the rust and scale had then collected at the foot of the upper vertical section, as it did not have any slope to help take it away [admittedly into a FO tank, but where it would likely sit at the bottom of the tank].



Actions / Recommendations:

- The collected rust and scale was removed.
- The vent pipe has had an internal inspection job created and included in her Planned Maintenance System.

This incident has been shared both, with her sister vessels within the company fleet; and widely within the industry, to raise awareness.

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