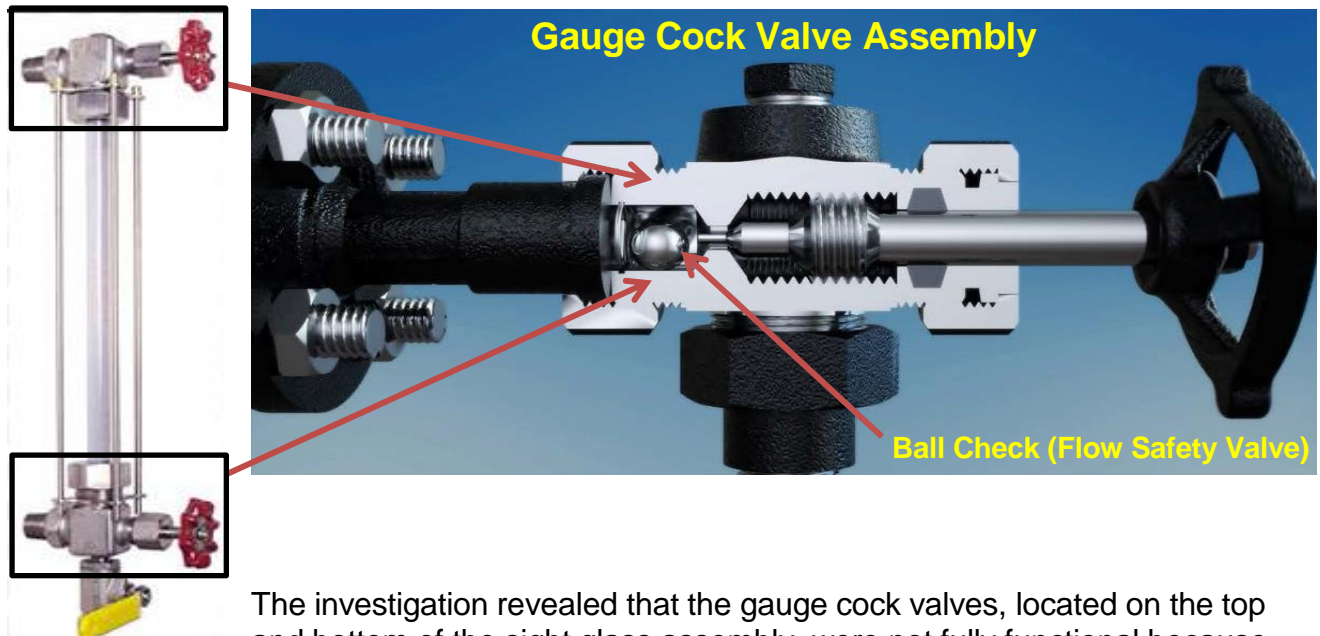


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Contact: Roderick Belson
Phone: (504) 736-2745

\$2.7 Million in Damages from Faulty Sight Glass Valves

On January 5, 2017, a failed vessel apparatus (broken sight glass) located outside of the Heater Treater discharged oil because the ball checks were not present in the gauge cock valves. As oil discharged from the sight glass, it saturated the protective insulation on the Heater Treater and blew into the Pipeline Pump #1 exhaust system, causing an ignition. As a result of the fire, damages to the Heater Treater and associated equipment were estimated at \$2.7 million dollars. Fortunately, there were no injuries to personnel.



The investigation revealed that the gauge cock valves, located on the top and bottom of the sight glass assembly, were not fully functional because there were no ball checks present in either valve. If the ball checks were in place, they could have prevented the flow and/or mitigated the amount of oil discharged out of the system due to sight glass breakage. Since the ball checks were not in place, a constant discharge of oil from the system occurred until the level of oil dropped below the bottom gauge cock valve.

Therefore, BSEE makes the following recommendations to Operators:

- Gauge cock valves should be equipped with an automatic ball check shutoff, in accordance with API 14J 3.3.2, to help prevent/mitigate rapid loss of fluid due to accidental glass breakage.
- Ensure that personnel are familiar with the manufacturer's installation, operation and maintenance requirements related to gauge cock valve assemblies.

- Ensure that personnel are familiar with and trained on the status/position of gauge cock valve assemblies.
- Ensure that personnel are familiar with and trained on operating procedures and maintenance related to sight glass assemblies.
- Periodically inspect the gauge cock valves to make sure that the balls are still in place and that they are functioning properly.

A **Safety Bulletin** is a tool used by BSEE to share lessons learned from an incident or near miss. It also contains recommendations that should help prevent the recurrence of such an incident on the Outer Continental Shelf.