

Step Change Safety Alert Template



Alert Title

Gas Release from body of high pressure fuel gas valve

Incident Date

1st September 2013

Location Type

Floating

Specific Equipment Involved

High pressure fuel gas compression discharge valve.

Description of What Happened

At 0236 hours on 1st of September 2013, an area operator reported seeing a gas cloud in the area of the HPFG compression. Simultaneously, several gas detectors in the area came into alarm condition. The gas was released from the discharge valve body from one of the two High Pressure Fuel Gas Compressors with a volume of 49kgs released to atmosphere. There was 340barG pressure on the downstream side of the valve, the valve was new and had been delivered with certification paperwork.

The HPFG system was depressurized remotely from the CCR via the system EBVs and the leak ceased. All actions from gas detection to engine manual stop was carried out within less than 1 minute. At the time of the incident the FPSO vessel heading was 265 deg, with wind at 31 Kts from 269 deg. Investigation findings have also established that an almost replica incident occurred in 2003, whereby a similar valve experienced the same technical problems.

Cause of Incident

Failure of ESV flange body.

Incident Consequences

Hydrocarbon Gas release, Process shut down.

Lessons Learned

- *Lessons learned from a previous incident in 2003 were not imbedded.*
- *O' ring was not of the correct type*
- *Review of valve type in use is required to ensure best available technology is used.*

Recommendations/Actions

- Consider update of maintenance database to include valid specifications and technical datasheets on all HP valves, to improve support for purchasing.
- Prior to transportation to the installation, equipment identified to be safety critical shall be inspected and accepted for use by qualified personnel.
- Consider to put up a program to replace them with valves according to current specification by TA.
- Review the purchasing process from initial request to final delivery, including development and QC of PO

Contact Details (Optional)

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