

Step Change Safety Alert Template



Alert Title

Diesel Spill from Gas separator day tank

What leaked and where from? E.g.: "Lube oil leak from compressor system open vent"

Incident Date

16/12/2012

The date on which the incident occurred, not when this form was completed

Location Type

Fixed Production

E.g. Floating/Fixed Production, Drill Rig, Vessel, etc.

Specific Equipment Involved

Gas Compression [GC]: General [GN]- Diesel Header tank inlet valve

Give as much detail as possible about the equipment involved

Description of What Happened

Whilst Operations were filling the Gas Compressor diesel tank a high diesel level alarm operated. The control room operator asked the technicians to check that the inlet valve had closed (as per design on a high level alarm). This was difficult as there is no external indication of closure and poor lighting conditions made it difficult to see valve stem movement. When the technician was informed of the second "High-High" alarm, he took the decision to go and shut off the air supply to the inlet valve actuator in order to close it. By this time the diesel was overflowing from the bund below the tank and shutting of the air flow had made no difference. At this point, the technicians then shut the main manual isolation valve (located 2 decks below) and items put down to contain the spill.

Be as detailed as possible. Give equipment history and approximate time(s) of actions/occurrences related to the incident

Cause of Incident

Failure of inlet valve actuator and blockage of drain lines

Build from OIR/12 checklist

Incident Consequences

Spill of up to 126 litres of diesel (estimated).

Include the release itself and any subsequent emergency actions/dangerous occurrences

Lessons Learned

The inlet valve failed to close on a high level alarm because its actuator was found to have seized in the mid position. The maintenance strategy for valve actuators was "maintenance on failure". The valve and actuator had been replaced about 12 months prior to the incident. Because of problems in the past with the inlet isolation valve sticking, operations had put contingency arrangements in making sure that the operators were aware of this potential and they knew where the manual isolation valve was (which was located 2 decks below the tank).

The diesel overflowed from the bund because the drain line to the open hazardous drains was blocked by grit and debris. The size of the bund is sufficient to have contained this spill and so it is believed that the bund was full of water when the leak occurred.

Include a few bullet points clarifying what was learned from the incident

Recommendations/Actions

- 1 Repair inlet valve & actuator and review suitability of current maintenance strategy
- 2 Clear drain of grit/debris and institute a policy to regularly inspect that bunds are clear. Also bund drains to be capped during gritting operations and checked on completion of the work.
- 3 Raise awareness of incident at safety meetings

Include a few bullet points stating any recommendations/actions that will be made/taken as a result of the lessons learned

Contact Details (Optional)

If you would like your submission to be anonymous, leave this section blank