

Step Change Safety Alert Template



Alert Title

Hydrocarbon Leak on MOL Pump

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

Incident Date

16th October 2013

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

Location Type

Semi-Submersible Production Unit

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

Specific Equipment Involved

MOL Pump (B) and a Flow Control Valve

Give as much detail as possible about the equipment involved

Description of What Happened

Production was being reinstated on the installation following a planned five day outage. During the outage two flow control valves (FCVs) downstream of the 'B' Main Oil Line (MOL) pump had been subject to intrusive maintenance.

During nightshift the MOL Pump 'B' was brought on line. Twenty minutes later a gas detector alarmed at the pump skid. An Operator was sent to investigate and reported an oil leak in the area. The pump was immediately shut down. The source of the leak was subsequently identified to be from the bonnet of one of the flow control valves.

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

Cause of Incident

- **Design - Failure related to design** – area extremely congested limiting access for maintenance and day to day operations (specifically to allow access for effective joint make-up using the available torqueing equipment)
- **Equipment – Mechanical Failure** – Immediate cause of the incident was a failed gasket
- **Equipment – Other** - Although the gasket was inspected and appeared in good order, no manufacturers torque settings or specifications were available on board the installation so torque settings were based on experience of the Technician.
- **Operational mode in area at time of release – Start-up** – Production was being reinstated at the time of the incident

Incident Consequences

Spill with minimal impact

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

Lessons Learned

- The available torqueing equipment could not properly access all of the bolts on the joint due to layout and space constraints
- There was a lack of manufacturer's information on board the installation for reference, namely; correct torque settings and static design pressure of mechanical seal
- There was no torque setting/specification history from previous work on this equipment.

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

Recommendations/Actions

- Failed gasket sent to suppliers to determine specific failure mode
- Appropriate torqueing tools acquired to address limited access to the MOL pump area
- Improved traceability of leak test process by introduction of leak test folder with method statements and leak test certification

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

Contact Details (Optional)

Kirsty Hart – Health & Safety Adviser – EnQuest

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