

Step Change Safety Alert Template



Alert Title

Gas Release GT4 Fuel Gas Filter / Separator RV Body

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

Incident Date

23rd June 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 Turbine No.4 (GT4)

Give as much detail as possible about the equipment involved

Description of What Happened

During running of GT4, a single gas detector within the Avon knock out drum enclosure indicated the presence of gas at 20% LEL. Executive action is taken on confirmed 2 out of 3 gas detectors at 20% LEL, a condition that was not achieved. The level of gas peaked at 37% LEL. Two operations technicians attended the immediate area and confirmed a gas leak from the upstream flange region of the relief valve (RV) fitted to GT4 fuel gas knock out pot. The system was safely isolated and depressurised.

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

Cause of Incident

Incorrectly fitted RV. The most plausible explanation for this damage is that the slip flange had been tightened before the outlet flange and there had been a slight miss-alignment. The resultant tension would have turned the body of valve, loosening the threaded inlet nozzle, bending the locking screw and subsequently damaging the threads, creating an escape path for the gas.

Build from OIR/12 checklist

Incident Consequences

RV is located in a significantly enclosed area (Classified Zone 2 Hazardous Area). Area is fitted with 3 gas detectors, requiring 2 out of 3 to detect gas to initiate automatic executive action. For significant injuries to occur then an ignition source would have to be present, which in normal circumstances is unlikely.

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

Lessons Learned

- Incorrect fitting of RV – Inadequate performance of skill (Amec A-Z Accident Causes)

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

Recommendations/Actions

- Determine if RV fitment procedure highlights that outlet flange must be tightened before slip flange. Amend as required.
- Ensure relevant personnel are aware of procedure for fitment of this type of RV.
- One page lesson learning sheet to be developed.
- All platform personnel be made aware of the learning from this incident during departmental safety meetings.
- Contents of this report to be shared with Aker Offshore Solutions.
- Technical Authority to confirm that the specification for the RV is correct for the application.

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

Contact Details (Optional)

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