Step Change Safety Alert Template

Alert Title

Hydrocarbon gas release (riser bundle) underdeck

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

Incident Date

06/02/2012

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

Well Systems, SubSurface [SS]: Production Riser [PR] - Riser bundle

Give as much detail as possible about the equipment involved

Description of What Happened

An operations technician during operations visited the Riser platform and noticed a hydrate around the caisson carrying the production and gas lift flowlines. Further investigation using gas meter with sniffer tube identified hydrocarbon gas to be leaking from under the passive fire protection coating, none of the platform fixed systems detected any gas. Note the leak source is below deck where there is no fixed monitoring system and the wind was taking any hydrocarbon gas away from the platform.

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

Cause of Incident

Corrosion under insulation.
Inspection management process failed to pick up significance of reported cracks

Build from OIR/12 checklist

Incident Consequences

The process was shutdown and the risers depressurised. During depressurisation gas meter readings were typically as follows - 100% LEL at the leak source on top of fire protection, 0%LEL approx 2 feet from riser bundle.

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

Lessons Learned

Installation of Passive Fire Protection (PFP) on risers should be robust against the corrosion under insulation threat.
Both PFP performance standard and riser inspection work instructions should provide specific guidance for inspection of PFP and follow-up in case of cracking.
Management of change should be improved to ensure that all relevant Standards, specific PS, effective communication of roles and responsibilities as well as awareness of associated links to other departments are available to the new personnel completing the inspection strategy and tasks.
Responsible engineers and/or inspectors for riser integrity should be sufficiently trained and competent to be able to access the condition of PFP on the riser and the need for remedial action.

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

Recommendations/Actions

Ensure performance standards for passive fire protection specifically cover water ingress and cover specifically all the locations on each installation when PFP is in use.
Review existing inspection management process with Pipelines, Inspection, Technical Safety, Structural and Material and Corrosion departments to develop a Corrosion under Insulation/ Passive Fire Protection on Risers Inspection Management process.
Develop clear criteria for risk based planning including guidance on how to determine riser criticality to harmonise inspection frequencies.
Consider whether Risk Based Inspection is adequate or would there be benefits to Time Based Inspection.

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