#playyourpart

HIGH VALUE LEARNING

High Value Learning

Gas leak from perforated closed drains line due to simultaneous operations

Who could be interested in this?

Production and maintenance teams

What is this all about?

A 2” closed drain line was subject to bristle blasting in order to allow further inspection & fabric maintenance.

Before work commenced the line was subject to an assessment by the onshore Technical Authority and it was confirmed as safe to bristle blast. However, the assessment was undermined as the corrosion scab height had been constrained by an adjacent unistrut, which also introduced a galvanic corrosion mechanism.

The line had been previously isolated from the upstream production separator, but it was not possible to apply an isolation downstream toward the flare header. The work permit however did not identify the potential risk of backflow to this section of line or consider the ‘what if’ scenario if the line was holed during the work. When the line was subsequently perforated, it was then ineffectively reported to the site management team thus preventing a timely response and assessment of the risk to take place.

As a result, a well was lined up to the flare knockout drum in order to stimulate production. The resultant gas flow into the flare header raised the back pressure resulting in a gas release from the hole created by the bristle blasting.

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Some things to consider?
• Consider whether your live blasting assessment would have highlighted the above issues which compromised the onshore evaluation. • Consider whether adequate consideration is given to simultaneous operations and system backflow in permit development and review. • Consider whether permits clearly communicate the actions to be taken to cover the 'what if' and that work parties are clear on the importance of clear, effective communication should a line be perforated during surface preparation operations.

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