



## **Safety Alert 07**

# **Hydrocarbon Gas Release Incident**

### **What happened?**

A recent hydrocarbon gas release incident, discovered following a cyclone, has highlighted issues associated with maintenance and testing of inaccessible components of offshore platforms, and preparation for response to potential emergencies.

The gas release occurred from a gas lift riser pipe within the riser caisson on the platform after being shut-in in preparation for an approaching cyclone. On return to the field, after the cyclone had passed, the gas line between two nearby platforms was found to have depressurised.

A gas compressor was subsequently started to commence a re-start of offshore wells and platforms. Personnel were mobilised to the offshore platforms to manually open valves to bring a well back on line.

Upon arrival at one of the platforms, personnel noticed the sound of gas passing and went to investigate. The crew found a gas leak inside the gas riser caisson and left the valves shut-in before travelling back to another platform to isolate valves supplying the gas riser.

The gas line pressure was bled to a flowline, with residual pressure released from the line through a vent boom. There were no resultant damage-causing events or injuries.

### **What went wrong?**

The gas release was found to have occurred from a corroded section of riser above the water-line which was not accessible to internal or external inspection. The investigation found that there were no inspection hatches on the caisson, and the diameter of this section of the gas riser was too small to allow intelligent pigging. As the design of the facility did not readily facilitate inspection, testing and maintenance of this particular section of pipe, the ongoing integrity of the riser could not be ensured.

Contributing factors to the incident included:

- Pipeline coating system deterioration and subsequent failure;
- Incomplete inspection and testing regime; and
- Failure to follow-up on lack of condition monitoring of a small section of gas riser.

## **Key lessons**

- Operators should ensure that inspection program results include a specific gap analysis commentary, in order to highlight any latent defects in inspection and maintenance regimes of safety-critical items and equipment.
- Operators should ensure that equipment is designed to provide adequate access for inspection & maintenance.
- Hazard identification should be conducted and appropriate precautions taken prior to responding to a potential gas release event. It is important to recognise that when responding to a potential gas release, the response to the initiating event can also contribute to harm to people.

## **Contact**

For further information email [alerts@nopsa.gov.au](mailto:alerts@nopsa.gov.au) and quote Alert 07