

High personal H₂S monitor reading during priming of gas compressor lube oil pump



Description of Process:

Priming of gas compressor lube oil pump

Description of Incident:

Prior to starting the gas compressor, the lube oil pump required to be primed by bleeding the pump via a vent valve. As the Operator was completing this task, he noticed a smell of gas from the vent followed by his H₂S monitor alarming. He immediately closed the vent, moved away from the area and informed the control room. The H₂S monitor was inspected and found to have a reading of 65ppm.

The incident was reported to HSE as ROGI-reportable under the RIDDOR Regs.

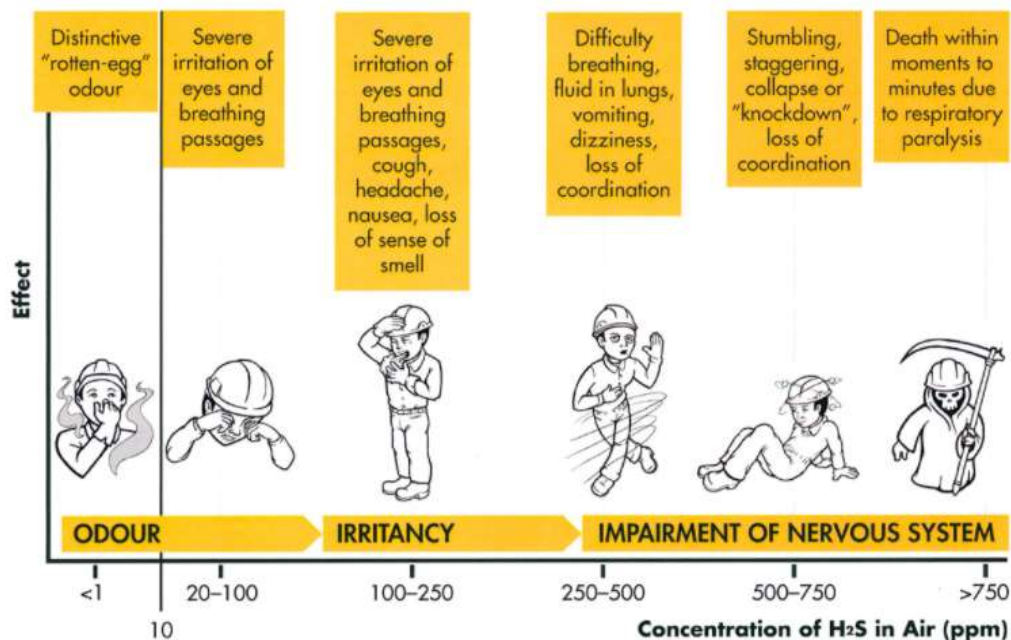
The investigation into this incident found a general theme of lack of awareness or adequate consideration of the hazard posed by increasing concentrations of H₂S within fuel gas. The MOC process, which was followed to implement the improvement i.e. to vent gas from the Compressor lube oil pump seals, did not sufficiently consider the

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location of the vent point relative to the position of the Operator when opening the vent valve. The procedure which was updated to include this step when starting up the gas compressor did not include a warning of the H₂S hazard. There was also a perception amongst the offshore operations team that because this was a controlled, short-duration release of gas, there was no significant health hazard. Additionally, it was the opinion of the investigation team that the hazard posed by the gradual increase in H₂S concentrations within fuel gas over the last 1-2 years was not recognised (hazard creep) and that there was not adequate communication of this from the onshore asset team.

Good Practice Guidance:

- Consider location of vent points relative to the position of operators when opening vent valves
- Ensure adequate general awareness of H₂S hazards and specific to site
- Ensure Task Risk Assessments capture all hazards present and the controls
- Carry out a Dynamic Risk Assessment / 20 second scan at site prior to commencing work

EFFECTS OF H₂S EXPOSURE

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