

## Build up of H2S at vent valve

### What happened:

After reinstalling a vacuum pump, it was found, prior to instrumentation connections, that a butterfly vent valve on pipework above had been reinstalled incorrectly.

The vacuum pump and associated pipework had remained offline for approximately 2 weeks after a shut down period, during which time there had been an unknown build up of H2S in the closed pipework.

On releasing the bolts of the valve to turn it around, H2S gas escaped as detected by the monitor and staff evacuated the area. The area was taped off at that floor level and below. Permits had been obtained and gas monitors utilised.

Ongoing monitoring deemed the area clear, first break procedures were put in place including the wearing of full face mask respiratory PPE and the valve switched around. No more H2S was detected during this time.

## Kawerau

### Key Learnings:

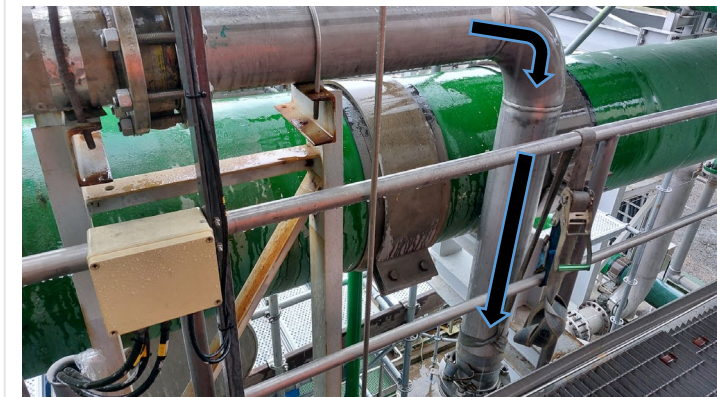
Understand that H2S still has the potential to build up after plant has been purged and opened. As plant is closed back up and readied for commissioning, there is a higher potential for the build up of H2S as each line is reconnected.

Double check orientations of valves with reference to swage piping or drawings/plans.

Where non-commissioned plant has been sitting for any period of time and a break has to be made again, treat each break as if it is the first, open any nearby drains or vents, double check isolations are still correct, monitor the environment and wear additional PPE.

Continue to always carry a monitor that provides coverage for potential gases in steam fields or steam plant areas.

These continue to be a reliable early indicator of the presence of gases.



Venting availability