

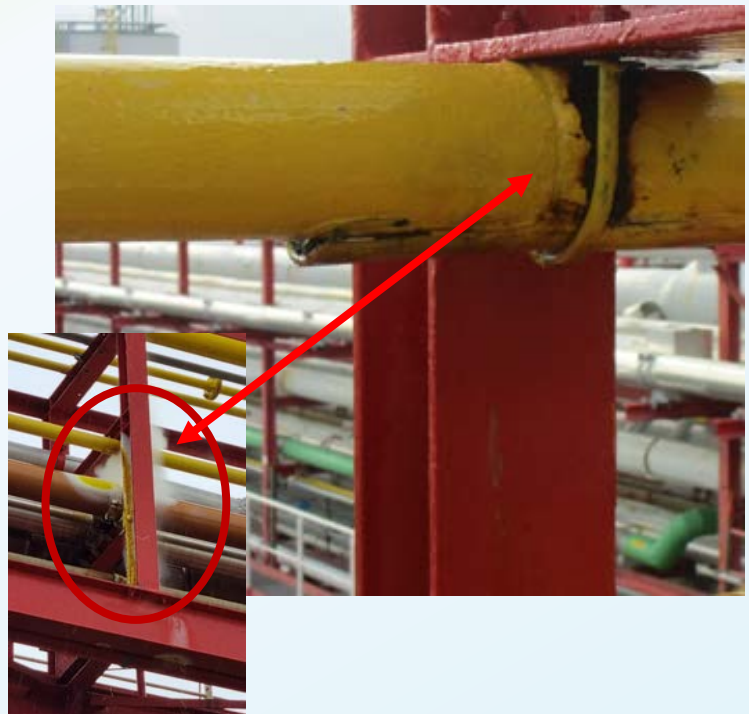
Chlorine Leak

EPSC Learning Sheet March 2023



What Happened:

A DN80 pipeline with 7 bar liquified Chlorine started to leak at the point where the pipeline is connected to the plant construction. The pipeline was high in a pipe-bridge without easy access for inspection, that was done 6 month ago. It missed this critical point.



Aspects:

- Pipe connections to the plant construction are potential weak points with enhanced erosion and corrosion.
- The pipe must be free hanging, allowing expansion. Such a profile allows that Plastic supported by metal reduces friction.
- Drones might be used to help inspections at difficult to reach places.
- Design pipe routing and supports in a way to enable visual inspection from all sides, avoid hidden spots.
- Critical points in pipelines that require additional attention during inspection include: spots with water retention, support points, dead legs, changes in pipe spec, vibration areas, spots with cyclic stress and thermal expansion.



Assure that pipe fixation points do not result in leakages