

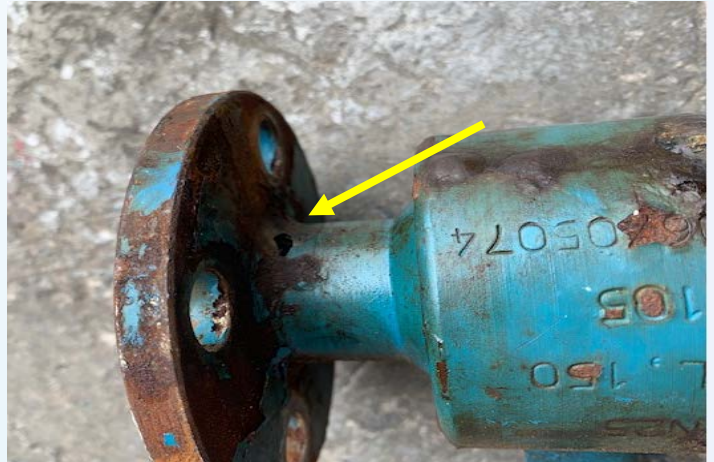
# Hexane Leak

EPSC Learning Sheet October 2023



## What Happened:

In an extraction unit using hexane, a 3mm hole near a flange of a ball valve was formed in a 2 barg line. A large hexane gas cloud inside the building was formed that was detected and vented.



## Aspects:

- During a renewal project to stainless steel (SS), the current (old) carbon steel (CS) ball valve was put back in service, as one SS valve was missing in the project.
- Due to the connection with SS, the corrosion of the CS flange was much faster than normal, at the point of the flange weld. This so called “galvanic corrosion” is related to differences in metal electro-negativity and needs an electrolyte like moisture.
- The corrosion was unnoticed due to insulation.
- During mechanical completion (or during a project PSSR), validate that equipment is of correct composition.

**Avoid Stainless Steel and Carbon Steel contact to avoid accelerated galvanic corrosion**