

P&ID As BuiltIn and Piping Survey



01

COMPLETE DOCUMENTATION NOT AVAILABLE FOR THE PLANT

Incomplete documentation from the design phase to commissioning phase



02

CONTRADICTING P&IDS

Available P&IDs give contradicting picture about the process philosophy hence jeopardizing the safety of the plant



03

DEVIATIONS IN DESIGN

Whilst construction many deviations have been done from the initial design, but no documentation in place. Are these deviations safe for optimal operation of the plant/asset?



Challenges Faced by Shell

- After plant being commissioned and run being a brownfield project there was no documentation in deviations implemented whilst commissioning and further modification whilst operational of the plant.
- Contradicting initial construction plan various new piping and various modifications were present of which no proper documentation was available. Which is **against** operational rules and regulation and can be deemed as **dangerous**
- Are these deviation **safe** to be operated in the plant?



Solution Approach by Petrodia

- Inspection of the platform, helideck, living quarters, process area, well heads and emergency escape routes
- Carrying out survey for P&ID As BuiltIn Drawing
- **Qualitative risk analysis** for dropped object, vibration and corrosion for pipelines
- Identifying socket and threaded joints and performing **qualitative risk assessment** of stress and strain of these joints
- Carrying out survey on safety critical vent, drain and flare lines to ensure operational safety of the plant



Results Delivered by Petrodia

- Shell has **standardised documentation** of the platform in it's operational state, in **compliance to international and Shell's standards**
- Documentation, identification and verification of pipelines and modified or new pipelines will enable the crew to carry out operation and maintenance in a more standardised manner conforming to Shell's and international standards. **Increasing safety and production of the plant**
- Documentation will enable further extension or modifications to the platform be carried out easily in the set international standard thus **reducing cost**
- Risk assessment of the pipelines will ensure operational safety of the pipelines thereby **reducing** cost and **reducing** downtime

