Presentation on:

CONTROL MEASURES DURING PROJECT STAGE FOR MINIMISING THE DEAD LEG IN PROCESS PIPING AT KOC GATHERING CENTRES

Abstract

Dead legs are part of piping system that normally have no significant flow / intermittent flow / Stagnant condition which could lead to accelerated localized pitting corrosion resulting in leaks.

This technical paper describes a pipe rupture incident near to a Dead Leg location in one of the KOC facilities and the key findings, recommendations based on failure investigation carried out by a Task Force Team along with the preventive, corrective actions implemented / planned by the asset owner.

Key recommendations include the need to challenge the need for dead legs during design review stage / Feed stages for the new facilities and to ensure elimination, reduction of dead legs for enhanced asset integrity of facilities.

Effective review of P&IDs and Model Review during the FEED stage and Construction Stage of the facility is of paramount importance in eliminating or minimizing the dead legs in the facility. Besides the design review, adequate inspection during the construction activities to maintain the slope requirement in the piping as required.

This paper discusses KOC's experience about the challenges associated with minimize/eliminating the dead legs of piping, inspection during construction and NDT inspection during in service of the dead leg portion.

Biography

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- Holds a Mechanical Engineering degree from Kuwait University.
- Currently working in Kuwait Oil Company as Senior Project Inspection Engineer.
- Having more than 15 years of experience in Oil & Gas Industry Projects like Oil Gathering Centre, Booster Station, and Effluent Water Injection Plant.
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