

Case Study: Oil & Gas – Oil Refinery

RD-6 Non-Shielding Coating System



Industry

Oil&Gas–Petrochemical (Oil Refinery)

Customer

One of major Oil Refinery, based in Karachi, Pakistan with a network of cross-country pipelines, which passes through highly corrosive and demanding soil conditions.

Back-ground

The refinery has an extensive pipeline network passing through the city of Karachi, Pakistan – from the refinery to oil jetty, through urban residential areas, open sewer canals, industrial areas. These pipelines carry the lifeline of the refinery, all hydrocarbons, and pose a big challenge to safely maintain these pipeline

assets, as any damage or leaks could pose environmental, safety and daily-life disruption risks. The refinery has extensive experience in using different coating systems but to their experience many types of coating systems failed because of the highly demanding and corrosive soil conditions through the pipeline routes.

Challenges Faced

The refinery's pipelines pass through open sewer canals. These open sewer canals carry waste which has a combination of wastewater and debris. The sewer wastewater being acidic, on one hand poses a challenge for the coating system and on the other hand debris can potentially damage, by impacts, the coating system. This situation where pipeline being in a submerged, acidic wastewater environment and abrasive impacts of debris is beyond the

capabilities of many field applied coating systems.

Operating Conditions

1. Pipeline Diameters: 6", 8", 10" & 12"
2. Media: Hydrocarbons
3. Environment: Open Sewer Canals waste

Solution & Benefits

After reviewing the physical properties of RD-6 and testing in aggressive soil environments, client has been using RD-6 since 2015-16. RD-6 uses Polypropylene (PP) backing in mesh-back design, being highly rugged coating system opposed to other competitors which use Polyethylene (PE) backed coating systems, which easily fail in aggressive soil conditions. RD-6 has won the confidence of client as a coating of choice.