CASE STUDY

SGS IN SOUTH AFRICA: CORROSION SERVICES FOR ENGEN REFINERY

ISSUED – FEBRUARY 2013

SGS provides comprehensive corrosion services, including rope access inspection and maintenance as well as corrosion monitoring services for the preservation and protection of storage tanks and piping insulation at the Engen refinery in South Africa.

An African-based energy company focusing on the refining of crude oil, Engen, selected SGS to provide comprehensive corrosion services to include rope access inspection and maintenance as well as corrosion monitoring services for the preservation and protection of storage tanks and piping insulation at its refinery in South Africa. SGS experts removed old paint and rust on storage tank exteriors using an ultra high-pressure (UHP) water jetting system. Cleanly stripped surfaces were then repainted via qualified rope access as well as a customised tank crawler available in South Africa exclusively through SGS.

ENGEN OIL IN AFRICA

Engen enjoys a presence in over 20 African countries in sub-Saharan Africa and the Indian Ocean Islands. The market leader in South Africa, its country of origin, Engen also exports to over 30 territories. Its refinery in Durban, S.A. can produce up to 135,000 barrels of processed oil per day.



SGS ON-SITE SERVICES IN AFRICA

Over the last four years, SGS has been providing diverse services at the Engen refinery. Alone in February 2013, Engen selected SGS to complete in excess of 20 different refinery projects.

Comprehensive corrosion services using ground-breaking rope access methods unique to SGS have protected equipment from corrosion and saved Engen money spent on traditional scaffolding.

SGS CORROSION MONITORING & ROPE ACCESS PROJECT

For the South African project, highly-qualified SGS engineers, certified inspectors and material specialists developed a tailored management strategy to meet the specific needs of the Engen refinery. SGS provided the extensive experience, deep understanding and state-of-the-art equipment necessary for a comprehensive range of corrosion monitoring services.

SGS experts detected and monitored corrosion in order to:

- determine corrosion rates
- identify potentially hazardous conditions
- locate structural defects
- flag material non-compliance







SGS strategies created a proactive culture of safety and substantially reduced maintenance costs. SGS professionals calculated remaining equipment life and implemented cost-effective inspection and maintenance programmes for items at high risk. SGS solutions ensured the integrity and safety of Engen assets and contributed to the successful health, safety and environmental (HSE) management programme.

Harsh operating and environmental conditions along with chemical agents subject industrial equipment and plants to high rates of corrosion which can lead to:

- structural damage
- leakage
- costly repair
- lost or contaminated products
- environmental contamination
- risk to personnel
- low public confidence

SGS corrosion monitoring services focus on critical equipment in order to avoid catastrophic failure and maintain safe and reliable operations.

Thorough external SGS rope access inspections together with the customised tank crawler saved time and reduced cost in the maintenance of tank surface paint coatings at the Engen refinery. SGS rope access services assisted in the essential inspection, testing and surveying work of hard-to-reach areas quickly and safely with minimal disruption to operations and offered a cost-effective alternative to traditional scaffolding or mobile elevated work platforms.

A leader among industrial rope access services providers, SGS boasts an exemplary safety record. SGS technicians are required to undergo extensive training and independent assessment every three years. Furthermore, SGS Industrial Rope Access Trade Association (IRATA) membership guarantees all rope training and operational work compliant with international guidelines.

At the Engen refinery, the number of staff doubled within a 16-month period to reach 115 contract staff and 8 SGS professionals on the ground. The extremely effective SGS methods implemented during blasting and painting and the successful on-schedule completion of the project resulted in Engen contracting comprehensive SGS corrosion services using rope access for further projects within the field of corrosion protection at the South African refinery.

SGS looks forward to serving Engen in future projects promoting industrial safety in South Africa.

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