Fluitec

CASE STUDY

Fill4Life™ Perform for Life.™

Industry
Offshore Oil & Gas

Machinery
SOLAR Gas Turbines

Location
North Sea, Aberdeen, UK

Product
DECON™

Estimated ROI
$4,000,000 in savings

Web
www.fluitec.com

Background

SOLAR gas turbines on a North Sea platform showed rising varnish potential, but an offshore oil change wasn't viable. DECON™, applied in-service at 5%, stabilised MPC™ at 5 — no oil change, no downtime. The operator has since granted formal MoC approval, with fleet-wide rollout planned.

North Sea Platform Operator Extends Turbine Oil Life and Secures Fleet-Wide Approval with DECON™

Oil analysis of the SOLAR gas turbines on an Offshore Oil and Gas platform in the North Sea identified elevated MPC values, indicating a rising varnish potential in the Fuchs Renolin Eterna turbine oil. The platform maintenance team did not have the time or budget available to replace the turbine oil — a common challenge in offshore operations where planned maintenance windows are limited and the cost of an offshore oil change is substantial. Continuing to operate with elevated varnish potential carried increasing risk of bearing deposits, servo valve sticking, and potential turbine trips. A conventional oil change was not viable in the available timeframe; a chemical in-service solution was needed to restore clean oil conditions without taking the turbines offline or conducting an oil change.

Following treatment, the operator completed a formal Management of Change — making DECON an authorised, ongoing treatment for the platform's turbine fleet.

MoC
APPROVED FLEET ROLL OUT

$4M
ESTIMATED ROI

DECON™ stabilised MPC at 5 — low and stable on quarterly analysis — and delivered an estimated USD $4M net benefit at a 194x return, with no oil change required.

Our **Solution**

A&S International recommended that Fluitec's DECON was applied at 5% concentration to the SOLAR gas turbine lube oil systems on the offshore platform. DECON uses patented SOLVANCER® chemistry to dissolve and mobilise varnish precursors from turbine surfaces into the circulating oil, from where they can be removed by the existing filtration system while the turbines remain in service. No oil drain, flush, or production shutdown was required. Following the successful treatment and MPC stabilisation, the operator has completed a Management of Change (MoC) process to formally approve DECON as an ongoing treatment for that offshore platform's turbine fleet. A VITA ESP™ V100 electrostatic filtration unit and DECON™ AO are also being evaluated as complementary next steps to further enhance long-term oil condition management.

Our **Results**

- MPC reduced to 5 following DECON treatment which is low and stable on ongoing quarterly analysis
- Oil life extended with no oil change required despite elevated MPC; turbines returned to safe operating condition in-service
- Management of Change (MoC) formally approved and DECON™ now an authorised treatment on these turbines
- VITA ESP™ V100 filtration and DECON AO under evaluation as next steps for long-term oil life management
- No production downtime and full treatment conducted in-service on an active offshore platform

The formal Management of Change approval and planned fleet-wide rollout make this one of the most strategically significant outcomes in the UK case study portfolio. The combination of in-service varnish removal, oil life extension, and MoC approval demonstrates the full value proposition of DECON in offshore gas turbine applications — particularly where oil changes are logistically difficult and costly. Ongoing monitoring is supported by regular MPC and RULER® analysis.

Results at **a Glance**

MPC 5
stabilised — low and steady on ongoing quarterly analysis

$4M
estimated savings 194x return on treatment cost

5%
DECON™ concentration, applied fully in-service

0 hours
downtime — no oil change on an active offshore platform

MoC approved
DECON™ authorised as ongoing treatment; fleet-wide rollout planned

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SCAN-to-LEARN

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