



ENVIRONMENTAL TECHNOLOGY

## **CFFC™ solves reliability problem on North Sea oil platform**

The installation of an AESSEAL® high performance CFFC™ dual seal proved to be the solution for the persistent failure of a seal on a North Sea oil platform. The existing seal was fitted to a vertical crude oil pump, and was failing every few months on average, and sometimes after just a few days.

The problems included reverse pressurization, excessive leakage, and sudden loss of barrier pressure, resulting in loss of production and expensive repair bills.

When repeated seal failures exhausted its stock of spares, the company turned to AESSEAL® in search of a possible solution. AESSEAL® recommended replacing the faulty seal with a specially modified CFFC™ seal, which is specifically designed for use on difficult applications, including oil pipeline pumping, water injection and boiler feed duties. The specially-modified version provided to the company included an inboard gland plate which allowed for the installation of an improved throttle bushing assembly with close clearances.

This reduced the flow of fluid reaching the seal faces, creating a back pressure between the pump stuffing box and seal chamber, which in turn greatly reduced the risk of reverse pressurization and fluid entering the seal. An upgraded Plan 53B seal support system with python cooler was supplied to provide even greater support and reliability. The python cooler allows barrier fluid temperature to be reduced and maintained, eliminating the risk of excessive heat generation at the sealing surfaces.

The new seal was installed in June 2025 and has been working without a problem for more than nine months. Taking into account the production shortfall caused by the persistent seal failures, which ruled out any possibility of using the MOL Booster pumps, the savings resulting from the installation of the CFFC™ seal and support system are estimated to be in the region of £150,000 a day. As a result the company has now purchased two new pumps for a plant modification, using the same sealing solution.

## **‘Saving around £150,000 per day’**

Industry:	Oil & Gas
Product:	CFFC™
Application:	MOL Booster
MTBF Increase:	100% (and counting)
Savings:	£150,000 per day
Reference N.O:	TD3132486



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