



CLEAR SOLUTIONS for complex fluids

Brownfield Improvements: From a Rental to a Permanent Solution



CHALLENGE

- Cracked hydrocyclone, high flow rate, discharge compliance



SOLUTION

- Hi-Flow[®] rental, hydrocyclone, CrudeSep[®], permanent fluid treatment installation



RESULTS

- Compliant overboard discharge, no operational downtime, no lost revenue Water

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CHALLENGE

A platform in the South China Sea cracked its existing hydrocyclone vessel and contacted CETCO Energy Services (CETCO), for both a temporary and long-term solution for its onboard produced water treatment system.

CETCO SOLUTION

CETCO mobilized a Hi-Flow® rental package to replace the malfunctioning hydrocyclone and maintain the platform's production. Following the rental's success, CETCO's capital sales line, CETCO Process Equipment, designed and installed two 24" hydrocyclones and a 48" CrudeSep® compact floatation vessel to permanently solve the operator's produced water treatment problem. The Hi-Flow® equipment could accommodate flow rates of 70,000 bbl/d, treat produced water inlet flow up to 1,000 ppm oil-in-water, and achieve overboard discharge quality of less than 40 ppm. CETCO Process Equipment carefully designed the permanent installation, making modifications to the existing platform structure as needed in order to ensure efficient use of space in what was already a congested section of the platform. Meanwhile, the Hi-Flow® rental unit allowed for uninterrupted platform production as the permanent equipment was installed in phases. The hydrocyclone vessels were installed first, and then the CrudeSep® polishing units were installed downstream.

RESULTS

The effluent quality exceeded overboard discharge requirements. As a result of using the Hi-Flow® rental package, the platform experienced no operational downtime during the design and installation of the permanent water treatment package. CETCO's performance was recognized by the operator for minimizing their chemical usage and for allowing maximal production flow rates.

