

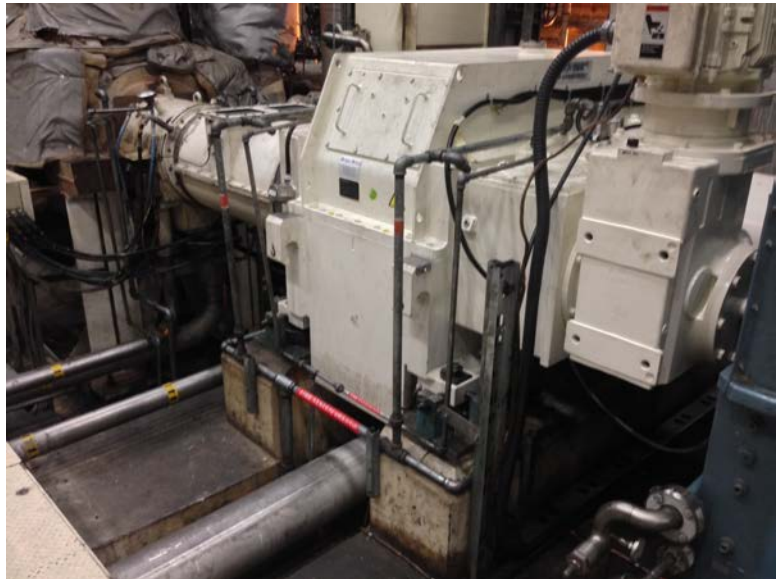
TURBINEKEY: ACQUIP/FGGS/GDF Suez Steam Turbine Gearbox Generator Alignment

PROJECT SCOPE

GDF Suez and Siemens Energy needed to replace their existing gearbox with a higher rated Flender-Graffenstaden gearbox to accommodate the turbine upgraded capacity. The new gearbox had a different shaft elevation and thermal signature so the original gearbox alignment position and target were no longer relevant. GDF Suez and Siemens energy needed a way to swap out the gearbox in a compressed outage duration and receive an OEM warranty on the new gearbox and alignment. As a result, Siemens decided that the TurbineKey service provided by ACQUIP and FGGS was the best solution for this case.

HOW WAS TURBINEKEY INVOLVED?

The TurbineKey Engineers through ACQUIP and FGGS, were brought in to replace the gearbox. As found alignment readings were recorded on the original gearbox. The original gearbox was pulled out and the new gearbox was installed. The new alignment targets were calculated for the upgraded Flender Graffenstaden gearbox. The gearbox was aligned to the turbine and generator. FGGS engineers then ensured that the gearbox was leveled and proper contact was maintained between the gears.



RESULTS OF THE PROJECT

The turbine was started without incidence. The Turbine was able to deliver full rated capacity to the Generator with the new gearbox. The vibration levels and temperatures of the new Flender-Graffenstaden Gearbox bearings were much lower than on the original gearbox.