

## General Electric D11 Steam Turbine Internal Alignment Wansley GA.

### PROJECT SCOPE

The General Electric D11 steam turbine was brought down for a scheduled outage. GE power and water outage services required a top on tops off alignment of the High Pressure and Intermediate Pressure sections of the turbine. Laser was the preferred choice for alignment due to these units becoming notorious for their unpredictable shell reaction between major outages.

### ACQUIP'S SOLUTION

ACQUIP Services was contacted to perform a top on tops off alignment of the HP/IP section of the D11 Steam Turbine. ACQUIP utilized a FARO Laser Tracker system to measure and analyze the alignment data. From the acquired data the shell deflection and diaphragms adjustments were calculated. The data acquisition process was done while other work was being performed. Since the line of sight of the laser beam can be broken at any time without affecting the measurement accuracy, hence and optimizing the outage process.

### PROJECT'S RESULTS

ACQUIP's engineers' through a versatile laser tracking system and their sheer experience shortened the outage by quickly acquiring all the alignment readings. The alignment of the unit was restored the unit to its maximum performance, which resulting in a net gain in efficiency of approximately 4% once the unit was started. The rapid response and meticulous alignment done by ACQUIP, coupled with a state-of-the-art laser equipment, resulted in a fast turnaround and an increase in efficiency, which would improve the life of the unit as well as its profit margin.

