# LASER TRACKER SERVICES

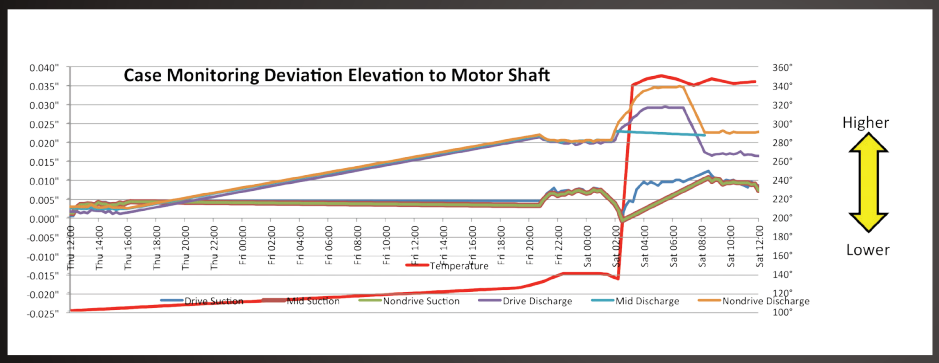
## *Nuclear Power Plant*

Falk PLI's nuclear client had a legacy issue with critical equipment that could shut down all power generation if it is not functioning correctly. Their heater drain pumps were becoming misaligned causing excess wear. Falk PLI was contracted to monitor the pump movement from cold alignment, hot alignment, and running condition.

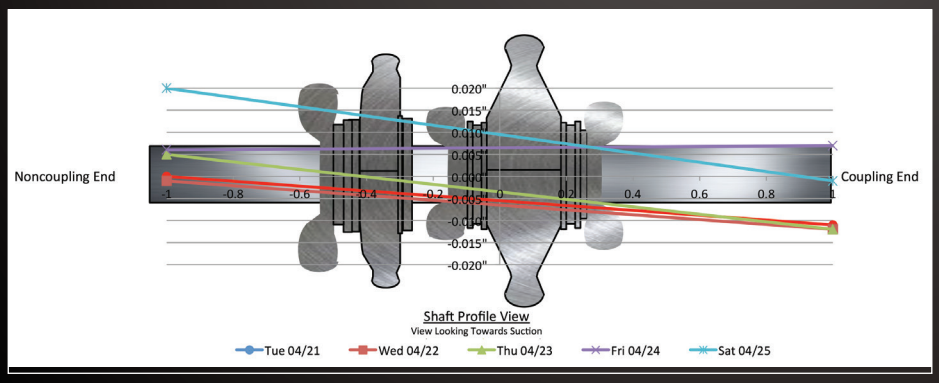
To monitor movement we attached 11 monitoring points to the pump housing and bearings. In addition, the shaft was measured at various points to determine internal alignment. Temperature correlation was measured with a thermal imager. After data collection was completed Falk PLI compiled and analyzed over 12,000 data points and created a dynamic animation to show the movement of the pump over time and under varying temperature conditions.

Laser Tracking technology allows for 3D measurements to be taken on objects more quickly and accurately; each measurement having 3D coordinates (X,Y,Z) with an accuracy of .001". Measurements are provided up to 10,000 readings per second yield unparalleled

Through the use of innovative measurement practices, Falk PLI worked with the client to create a solution to the problem that has plagued them for years improving equipment efficiency and reliability.




Shows a strong correlation of movement and growth relative to temperature change




Shows how temperature growth forces misalignment from the coupled side to the uncoupled side

FALK PLI

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