

Orbit Magazine

Case Study :: Probe Malfunction

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GE's Bently Nevada* Machinery Diagnostic Services (MDS) Team and System 1* help to reduce unplanned downtime with the detection of a probe malfunction in a turbine.

A large, privately-owned oil production company based in India has a Supporting Services Agreement (SSA) with GE's Bently Nevada product line. In addition to System 1 providing dedicated proactive monitoring of 36 critical machines, more than 600 balance-of-plant machines are monitored by SCOUT100 portable devices and Ascent software. Three on-site engineers provide ongoing support through MDS.

PROBLEM

A level three software alarm was triggered by one of the shaft proximity probes at the turbine driving a multi-stage horizontal pump. Using System 1 data, the on-site MDS engineers were able to recommend a solution to the problem within 10 minutes.

SOLUTION

It was observed that the gap voltage on one of the probes showed gradual abnormal increase. The team recommended checking the probes monitoring the turbine. Upon inspection, it was found that the probe sleeve was broken in two. The sleeve was replaced. The repair brought the vibration and gap trends back to normal.

PAYBACK

The customer was able to plan in advance for shutdown of the critical pump, thereby avoiding any detrimental effects on production. Without proper diagnosis, it could have led to an unplanned

Orbit Magazine

trip of equipment resulting in production loss and additional downtime. The customer saved an estimated \$200K USD.

BENEFITS

- Prevention of production loss and unplanned downtime. The customer was able to mitigate the potential costs of an unplanned shutdown based on the support of the Bently Nevada MDS team.
- Responsive and knowledgeable MDS team. The on-site team was able to react efficiently to the problem.
- Reliable and accurate data. Using Bently Nevada's industry-leading software and technology, the MDS team was able to determine the problem quickly and accurately.

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