CUSTOMER SUCCESS STORY

WIRELESS MONITORING PREVENTS PRODUCTION LOSS

INDUSTRY | Automotive — Rubber

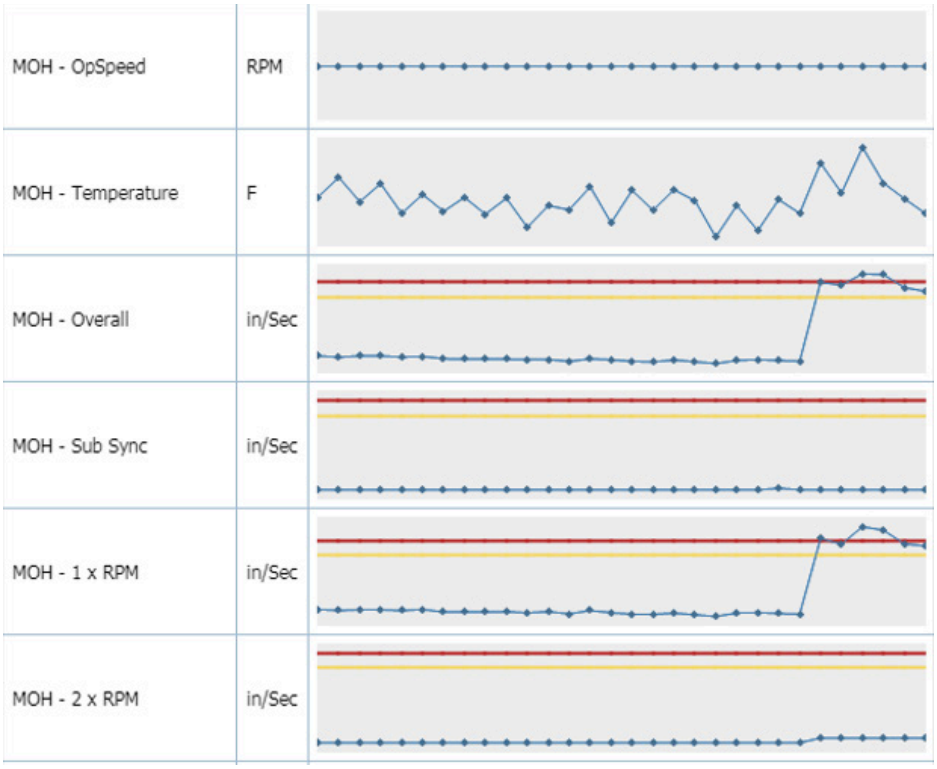
STATS

Pump Failure and Minimum One-Day Shutdown Averted

OVERVIEW

Our wireless system detected an increase in energy at 1xRPM and overall data that exceeded the alarm threshold thus sending an alarm to the Allied Analyst. The Allied Analyst then leveraged the SmartCBM™ reliability tool suite to determine the cause.

A full review of the data indicated that the coupling on a boiler feed water pump had locked upon startup. The analyst completed a fault entry report for the customer and communicated to everyone that was impacted. The report clearly outlined the assessment and the repair recommendation.



SMARTCBM™

VALUE DELIVERED

If not corrected, this problem would have led to pump failure. The repair estimate for this scenario requires a one-day shutdown to repair if a spare pump was available on-site when the failure occurred. If a spare pump was not available, a longer shutdown would have been required, meaning even more lost production.

ENABLING TOOLS, TECHNOLOGY, AND PEOPLE

Smart CBM™ Reliability Tool Suite

A set of proprietary tools that enable the development of a maintenance strategy listing necessary activities and their frequency to mitigate design-failure modes to maximize equipment reliability and availability. This suite includes our proprietary failure mode library which is derived from analysis of over 3 million components from over 1500 facilities.

Wireless Sensors

Continuous sensors collecting data three times a day.

Allied Analyst

Location: >> 1230-UTI PLANT UTILITIES >> 1230-UTI-STM STEAM UTILITIES >> FEED WATER PUMPS >> 1230-UTI-STM-WTR-BFP-P01-#1 BOILER FEED WATER PUMP >> COUPLING

Assessment Date:	5/8/2019 1:52:48 PM	**Analyst Name:**	Cary Barker
Job Type:	PdM	**Analyst Email:**	barkerc@alliedreliability.com
Severity:	High	**Technology:**	Vibration
Criticality:	115.9	**Failure Mode:**	Misalignment
Work Request:	Notification 000012452243 Created in ECC	**Part Name:**	Coupling, Elastomer Insert
Work Order #:		**Reason:**	Improper Alignment

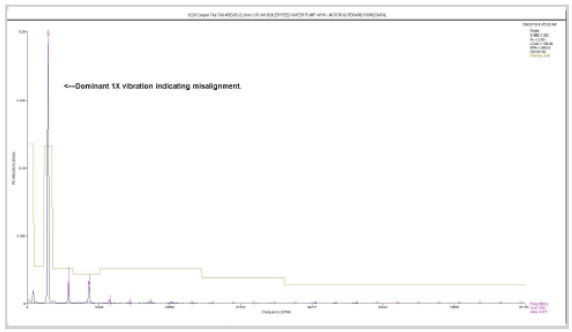
Assessment Comment: Perform precision motor alignment and replace coupling insert.

Analysis Comment: The vibration data and cross channel phase analysis indicates misalignment at the coupling.

Repair Recommendation: Perform a precision alignment and replace the elastomer coupling insert. Align the key ways 180 degrees apart. Set the coupling gap to the manufactures recommended distance for the coupling being installed. Properly lubricate the coupling if applicable.

Repair Comment:

Asset Photo
1230-UTI-STM-WTR-BFP-P01-#1 BOILER FEED WATER PUMP



Vibration
Vibration spectrum indicating misalignment.

Fault entry report capturing analysis and repair recommendation for client