

# POWER OPTIMIZATION CENTER



**Luminant**

## **ANOTHER SUCCESS STORY INDUCED DRAFT BOOSTER FAN HIGH VIBRATION**

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24/7 Real-Time Operational Support With *Actionable Intelligence*

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# **SOLUTIONS & SAVINGS**

**“Speedy action by the Power Optimization Center saved this generation facility \$1,291,738 in total cost avoidance and 1.425% negative impact on equivalent forced outage rate”**

## OUR MISSION:

The Power Optimization Center is dedicated to providing unsurpassed, advanced monitoring and diagnostics services to generation and production facilities. Industry-seasoned engineers and experienced process control operators excel in identifying incipient and long-term equipment issues around the clock, providing actionable intelligence directly to those responsible for real-time operations. With no ties to parts or maintenance organizations, the success of the Power Optimization Center is driven by the competitive market advantage its clients achieve through realizing maximum asset performance.



# INDUCED DRAFT BOOSTER FAN BEARING HIGH VIBRATION

The Luminant Power Optimization Center identifies, forecasts and advises plant personnel of emergent issues impacting production through the integration of remote monitoring, modeling and diagnostics.

In the current market environment of low natural gas and wholesale power prices and tightening emissions standards, generators need to produce megawatts as profitably as possible. The Power Optimization Center can help reach that goal.

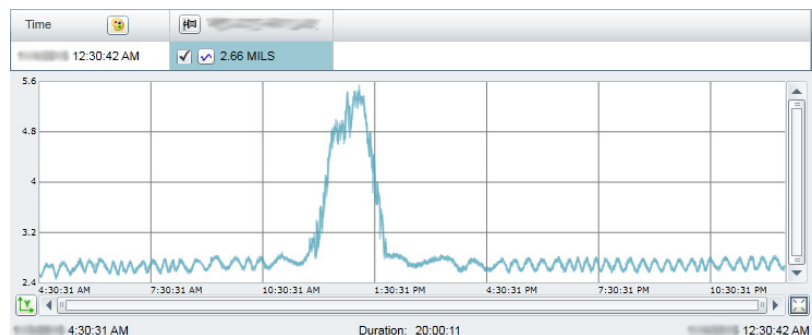
For instance, Power Optimization Center personnel discovered rapidly rising bearing vibration on an induced draft booster fan outboard bearing. **Speedy action by the Power Optimization Center saved this generation facility \$1,291,738 in total cost avoidance and 1.425% negative impact on equivalent forced outage rate.**

## The Problem

The Power Optimization Center received an induced draft booster fan outboard bearing high vibration alarm on the main alarm system. The booster fan provides pressure for the induced draft fan, which draws air and gasses from the furnace, helping to maintain a negative pressure in the boiler.

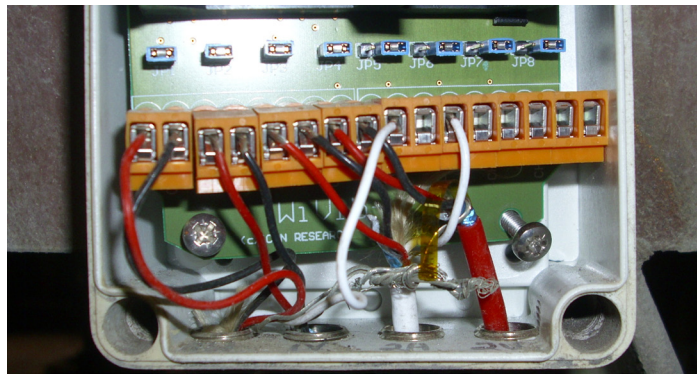
Following a swift investigation, Power Optimization Center operators compared bearing vibration parameters for the alarming booster fan to historical values and determined that the increased vibration was not normal and needed immediate attention.

Power Optimization Center procedures state that plant control rooms should be contacted directly when emergency situations arise, minimizing the time between emergency and remedy. This allows for proper plant personnel to assess the situation and follow their procedures without delay, minimizing risk and maximizing response time.



## The Solution

The Power Optimization Center contacted the plant and apprised operations of the rapidly rising bearing vibration. Plant maintenance was attempting to reduce fan housing vibration. However, in their attempt, vibration was increased causing a sensing line on a stall probe to fail, which removed plant vibration indication. Plant operations was unaware of the rising vibration. The Power Optimization Center utilizes redundant instrumentation to monitor and diagnose impending failures even when the most relied-upon instrumentation fails.



Plant operations was able to stop maintenance activities and return fan vibration to normal, preventing permanent damage, an unplanned outage and possible serious injury to those working on and around the booster fan.

## The Savings

The Power Optimization Center determines cost avoidance by applying proprietary calculations. This generating facility avoided \$1,227,613 in lost revenue and \$64,125 in maintenance costs, including parts and labor, totaling \$1,291,738 in total cost avoidance. They also avoided a 1.425% negative impact on equivalent forced outage rate.

Utilizing over a dozen separate software systems that monitor and diagnose just about any issue that may affect plant operations, the Power Optimization Center has a proven history of helping manufacturing and generating facilities realize maximum asset performance.

With power markets nationwide under low price pressures, generators more than ever need a way to analyze unit performance in real time to enhance efficiency, prevent shutdowns and save dollars. Whether your equipment resides in the utility industry, manufacturing or any other type of facility, the Power Optimization Center is ready to help your company achieve the highest levels of safety and reliability.

Call us today to see how we can bring value to your company and visit [www.pocdiagnostics.net](http://www.pocdiagnostics.net) to learn more.

# **POWER OPTIMIZATION CENTER**



**CONTACT US TODAY TO SEE HOW WE CAN HELP YOU**

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