CURTISS-WRIGHT

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PF-024-6.2019R1-ST-55E-PO

PdP and Wind Turbines

Curtiss-Wright provides the technologies and tools to make significant differences in a successful condition monitoring initiative.

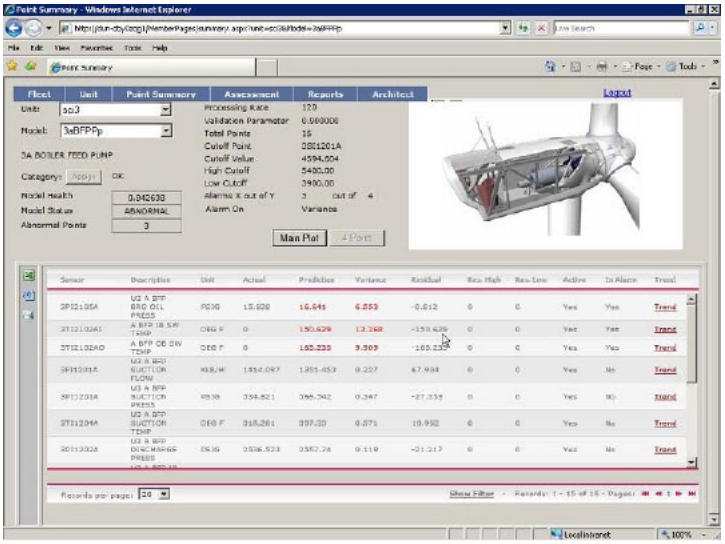
Wind turbine condition monitoring has become a valuable and necessary activity to best manage the asset's availability and reliability. Because of the unique operation of this type of equipment and the specific fault situations that may develop, wind turbine operators have turned to advanced monitoring technologies to aid in the overall understanding of their equipment's condition.

The key element of the Curtiss-Wright's wind turbine monitoring solution is the PdP (Predictive Pattern Recognition) application. When combined with Curtiss-Wright's Rules Engine application, automated condition assessments of the monitoring results are delivered.

Curtiss-Wright's monitoring tools are focused at providing early insight into developing problem situations and component anomalies. Curtiss-Wright's applications are directly aimed at the wind turbine's components that can benefit from advanced monitoring:

- Rotor
- Pitch Control
- Generator
- Blades
- Yaw System Hydraulic System
- Bearings
- Gear Box
- Main Gear
- Nacelle

With wind turbine reliability being a key operator concern, Curtiss-Wright's tools add value and provide the results that are needed. Early warning capability combined with flexible data integration and alarm processing provides the comprehensive, real-time monitoring needed to minimize unplanned maintenance and reduce operational risk.



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The Curtiss-Wright wind turbine condition monitoring solution is but one of Curtiss-Wright's FAMOS tool applications focused on providing early insight into developing problem situations and component anomalies.

PdP is a real-time, continuous, advanced pattern recognition application that relies on uniquely configured, component based models that provides early identification of developing problems and in-depth review of normal and abnormal operating conditions.

The Rules Engine is Curtiss-Wright's automated condition assessment application that utilizes all configured data information to provide real-time component specific fault analysis utilizing “logic tree” functionality. All assessment rules are completely user configurable and easily applied to any and all monitored components.

Curtiss-Wright provides an effective and optimized equipment condition monitoring initiative that relies on the following objectives:

- Leveraging available monitoring information
- True integration of all applied technologies
- Real-time indication of equipment health

Curtiss-Wright's wind turbine condition monitoring solution effectively fulfills all of these objectives.

All of Curtiss-Wright's real-time monitoring applications and tools utilize almost any existing data signals available through installed SCADA, DCS systems, historians, and other installed data monitoring systems.

Curtiss-Wright has also developed interfaces for the available control systems, which assures reliable installation of Curtiss-Wright's systems. With a common R*TIME database platform underlying all applications, Curtiss-Wright's tools are seamlessly integrated.