

Vibration Integrity Monitoring System

Background

Vibration monitoring of reactor coolant pumps (RCPs) is critical to reliable plant operation. Providing alarms and vibration levels to operators in the control room allows anomalies to be investigated and action to be taken to mitigate problems early on. The outputs of the monitoring system are a key part of a predictive maintenance program for critical equipment that is located inside containment.

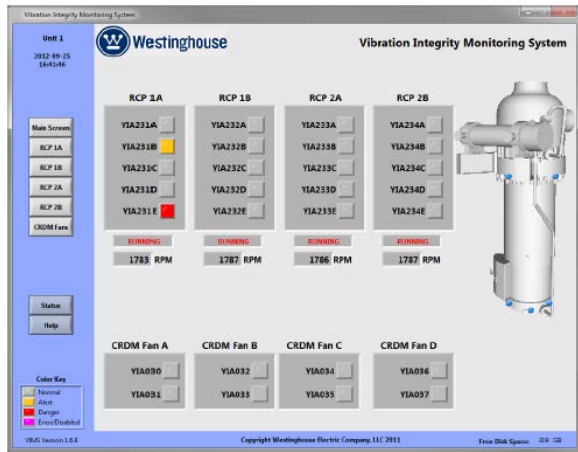
Description

Westinghouse has developed the Vibration Integrity Monitoring System (VIMS) to be the standard system for AP1000® RCP and control rod drive mechanism (CRDM) cooling fan vibration monitoring. The system is flexible and can be tailored to fit customer needs.

- Westinghouse expertise in RCP design can be employed to effectively configure the system for a variety of pump designs and configurations.
- VIMS provides machinery protection in accordance with API 670 and ASME OM-S/G part 24, Reactor Coolant and Recirculation Pump Condition Monitoring.
- The system may be designed to support accelerometers, velocity sensors or proximity probes.
- The system provides buffered outputs to support the plant's predictive maintenance program.
- The system is expandable to include advanced predictive monitoring capabilities.
- Alarms and vibration values are passed on to control room displays and historian.



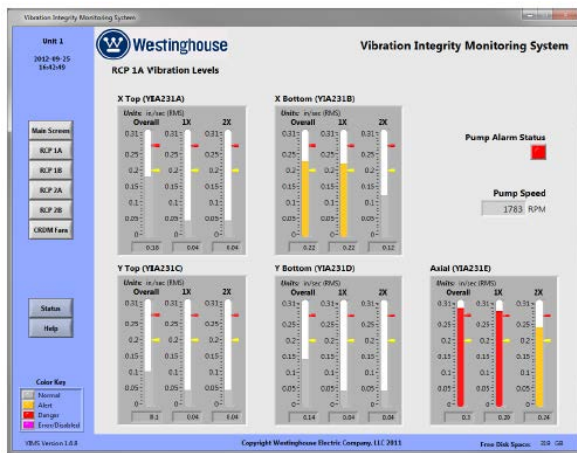
VIMS System



VIMS Main Screen

Benefits

- Provides continuous monitoring of vibration levels and alarms
- Allows for remote monitoring of critical equipment located inside containment while the plant is operating
- Designed using modern components and hardware
- Rack mount monitor modules are swappable and configurable
- VIMS software provides additional displays and system troubleshooting information



VIMS Pump Status

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