

CASE STUDY

EtaPRO APR™ Improves Anomaly Detection and Reduces False Alarms

Challenge

An East Coast power station had leveraged many technologies over the years to improve the reliability, availability, and capacity of the plant's three 660 MW coal-fired, supercritical units. Plant staff was interested in a single platform that could provide both thermal performance and equipment condition monitoring with broad distribution of critical information to operations, maintenance, engineering, and corporate personnel.

Solution

The customer implemented EtaPRO APR on ten critical pieces of equipment that were also being monitored by their legacy system. EtaPRO APR is one of the core technologies within the EtaPRO Performance and Condition Monitoring system. It utilizes a local modeling, advanced pattern recognition (APR) technology to provide early warning of equipment degeneration and/or failure, while minimizing false alarms.

Impact

Shortly after installation, EtaPRO APR initiated an alarm involving the generator hydrogen temperature coming from one of the gas coolers. The same data in the legacy system indicated the predicted temperature was tracking closely with a modeled value.

Continued operation at the recorded temperature would cause the generator hydrogen seals to shrink and potentially become brittle, ultimately resulting in possible gas leakage and a unit shutdown for repair.

RESULTS

Left undetected, continued use would have resulted in seal damage.

Repair or replacement of the seals would have required the plant to shut down to complete the work.

EtaPRO APR helped the plant identify and address the issue and avoid a potential outage.

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