

Alabama Power Saves Money Using Predictive Diagnostics from AMS™ Suite Applications



RESULTS

- \$40,000 per year saved through faster troubleshooting and calibration of valves
- 10% reduction in routine maintenance through predictive maintenance



APPLICATION

884 MW coal-fired Unit of 2000 MW Steam Plant

CUSTOMER

E.C. Gaston Steam Plant operated by the Alabama Power Company, a subsidiary of The Southern Company.

CHALLENGE

An upgrade at the No. 5 Unit of the E.C. Gaston Steam Plant involved the installation of FIELDVUE® digital valve controllers on 45 Fisher valves. At that time, Alabama Power engineers knew the operating information generated by these smart devices could be accessed by attaching a laptop computer loaded with AMS ValveLink® software. But plant personnel wanted to monitor these valves continuously and carry out maintenance and troubleshooting functions from one central location to make the best use of scarce resources and prevent unexpected upsets.

“There’s a lot more predictive maintenance going on now. In addition to working with AMS Device Manager, our predictive maintenance group is doing oil testing using AMS Machinery Manager. It’s a work in progress, but we estimate that predictive maintenance is reducing routine maintenance by about 10 percent.”

David Wright,
Senior Instrument & Control Specialist



For more information:
www.assetweb.com



SOLUTION

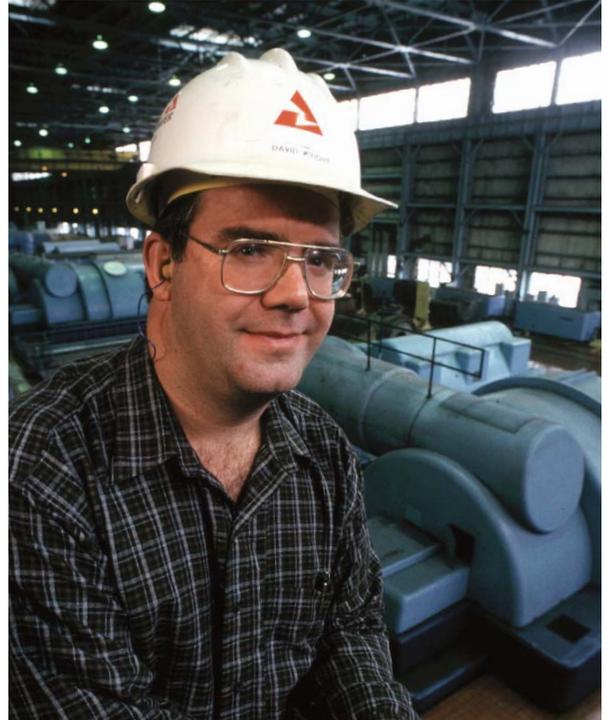
Emerson's AMS™ Suite: Intelligent Device Manager software provided exactly the tool needed to obtain data from the valve controllers using a PC located in the maintenance shop. This software integrates the field-based data into a single database which is organized and presented for I&E technicians to use. Routine maintenance tasks such as valve calibration and loop checkout are streamlined and all maintenance activity is automatically documented. Unexpected downtime is averted through predictive maintenance practices and the power of the PlantWeb® digital plant network.

Money and time have been saved in several specific cases:

- **Faster Troubleshooting** – When control room operators suspected a valve was not operating properly, technicians checked it out without leaving the shop. Although the actuator was pressurized, the valve was not moving. The problem was solved by downloading the correct configuration for that valve from the PC in the shop. What might have taken hours to fix was corrected in a few minutes.
- **Faster Configuration** – When a damaged positioner had to be replaced, the configuration parameters for that model were simply dragged and dropped from the database in five minutes. No trip into the plant was necessary.
- **Avoiding Trouble** – Using the polling feature of the AMS Device Manager, technicians were able to spot trouble in the hydrogen cooling system valve before it caused a system upset. Loose linkage was the problem, but it was easily fixed and a serious situation was avoided.

According to David Wright, Senior Instrument & Control Specialist, “The more we use this software tool, the more we see how effective it actually is. We’re getting more sophisticated with it all the time, including daily use of the polling feature, which enables one technician to check out each valve every morning. That has helped us implement our predictive maintenance program, which definitely improves plant reliability.”

Positive experience with AMS Device Manager has led to its installation on power generating Units 1 and 2, Wright said, where all HART® level and pressure transmitters are incorporated, along with all smart valves, in the diagnostic network.



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