TVA Uses Emerson Training to Ensure Best Use of Predictive Maintenance Equipment and Staff

RESULTS

- Maintenance staff trained on latest technology and maintenance practices
- All capabilities of equipment are accessible by trained technicians

APPLICATION
All rotating machinery relating to power generation and plant facilities at fossil, nuclear, and hydro generation plants

CUSTOMER
Tennessee Valley Authority, Chattanooga, Tennessee

CHALLENGE
After twenty-seven years in the power industry, Bob Prince, a Principle Engineer in Tennessee Valley Authority in Chattanooga, Tenn knows keeping a fleet of power plants running at their best requires more than just excellent predictive maintenance equipment and software.

Without sufficient training even dedicated technicians can't use the tools of their trade to their maximum benefit. "We might have 5 or 6 analyzers at each plant and 5 or 6 people who collect and analyze data, but unless your people know how to efficiently manage the data and correctly interpret it you will not achieve success in your program." That takes a lot of experience and high quality classroom training. For example, the CSI analyzers and the new AMS Suite™ Machinery Health™ Manager software "have so many different functions and capabilities that one 3-day class will not give you training in all those areas."

Additional training will unlock the benefits of state-of-the-art analyzers and software. "In the first course you can learn what buttons to press and how to load routes and acquire data. Then you need training in using the AMS software to build databases, routes, and setting up your analysis parameters and alarm limits. You also need basic vibration analysis training, then additional training in intermediate and advanced analysis, using some of the advanced technology built

"You have a great facility here in Knoxville, computers at each desk, instruments connected to computers, very good AV equipment. Most important is the excellent instructors."

Bob Prince, Principal Engineer, TVA

"Because of the enormous ability of the CSI equipment, you need more than one course. The analyzer may be pretty intuitive, but it has so much capability that training is essential to properly learn how to get the most out of it."

Bob Prince, Principal Engineer, TVA

AMS Suite

For more information:
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into the analyzers like synchronous time averaging, order tracking, impact or resonance testing, cross-channel phase analysis, PeakVue®, etc." CSI is always on the leading edge of technology, introducing new tools to help achieve excellence in predictive maintenance programs.

SOLUTION

Emerson Process Management provides courses in infrared thermography, alignment, balancing, oil analysis, ultrasonics, vibration and AMS Suite: Machinery Health Manager software, available at the level and location which best meets the customer's needs. "All of our people get ongoing training." says Prince. "We are firm believers that training is essential part of our program.

"We have great equipment and software and great personnel, but a critical factor in our success is the good support we get from Emerson Machinery Health Management. We can discuss our specific needs and create specialized training programs just for us. It was very helpful to have Emerson working to design a curriculum that fills gaps in our skills and knowledge.

"Emerson has refined the training and equipment. They know how to present the material efficiently, and it is easier to learn in a short amount of time," whether in a classroom or at your site location.

"Onsite training means you can actually design training around equipment on site in the real environment." On the other hand the advantage of classroom training is that technicians can focus on the class material without distractions. "It's more relaxed, and you can talk with Emerson staff and network with other personnel from different plants, even other industries. Training at Emerson's facility is well designed, efficiently presented. There are analyzers connected to computers at each desk, and very good AV equipment. Most important is the excellent instructors."

Whether the need is for ongoing training for hundreds of members of a maintenance staff of a big power company or one technician's pursuit of mastery of his own analyzer, the right training can mean the difference between leaving the full power of the device untapped and hidden, or drawing the full benefit from the analyzer.

> *"A world class predictive maintenance program requires training in general concepts, but also in use of equipment and software. This is essential."*
>
> **Bob Prince, Principal Engineer, TVA**

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