



Jeff Schraut, Assistant Plant Manager Ameren CIPS

Ameren CIPS, or Central Illinois Public Service, incorporates four power plants to service central and southern Illinois. Jeff Schraut, Assistant Plant Manager, uses the Advanced Winding Analyzer (AWA) regularly in his predictive maintenance program.

During routine testing of 4160 V motors, Schraut found a damaged connection at the motor terminal box using a DC HiPot test. He discovered severely damaged insulation causing a short to the cover of the terminal box. Arcing to ground in the future appeared likely.

Schraut said, "We estimated that there was a 40 percent chance only minor repairs were required resulting in the loss of the fan for 24 hours." If the cable also required replacement, Schraut estimated the fan would be out of service for approximately four days. Either scenario would require a 50 percent reduction in maximum load while the fan was down. Schraut concluded, "Under these assumptions, we arrived at a overall cost savings of \$643,228.00



Frank Rossi, Sales Manager Youngstown Electric Service, Inc.

Youngstown Electric Service, Inc. an electric motor repair business, services a wide variety of industries from automotive and steel mills, to mining. Youngstown utilizes the Advanced Winding Analyzer (AWA) as their primary repair tool. Frank Rossi said, "With the Baker Winding Analyzer, we are able to offer our customers peace of mind, knowing that their motor can be electrically checked at their site, and with better periodic checking that can predict when their motor will fail."

Youngstown offers their customers a service that they were unable to provide in the past. Their customers appreciate the quick, professional reports the unit generates.

Rossi added, "What we admire most is the support we receive from Baker on issues or questions that arise on the unit. Every time we call we are treated with the utmost respect and professionalism from the Baker staff."



Dan Meadows KJC Operating Company

A leader in solar thermal technology, KJC Operating Company produces solar energy for over 50,000 homes.

Upon routine inspection of a 1500hp motor, Dan Meadows found it to have low resistance to ground. The motor was located in a hot environment and had been rewound. After performing a surge test, he detected a knife-cut in the lead wire and one lead was going to ground during startup. Meadows then sent the motor in to have new leads installed. With the Advanced Winding Analyzer (AWA), Meadows found the defective motor before it failed, saving

his company an estimated \$100,000.



Pat Smith, Electric Shop Supervisor Union Pacific Railroad

Union Pacific Railroad overhauls GE and Electro Motive traction motors, generators, and alternators to maintain their locomotive fleet. Pat Smith, Electric Shop Manager, utilizes the D165 Digital Surge Tester in his predictive maintenance program and appreciates the tester's ability to detect problems that other testers cannot.



Upon routine maintenance on some of the fleet's traction motors, Smith found a coil breakdown on a 750hp, 30 year old motor that had been exposed to a variety of environments including, hot, cold and dirty. Had Smith not detected the flaw, Union Pacific could have lost well over \$100,000 in delay time on the main line.



Joe Regan, Manager E&I Maintenance Operations Georgia Pacific Corporation

Georgia Pacific Corporation is a leader in the pulp and paper industry.

During a recent "Keep Your Motors Running" training seminar, Joe Regan realized that some of his testing parameters were not where they should be, especially regarding DC motors. Regan stated, "We enjoyed having a diversified group participating in the class. In our group we had representation from rebuild shops, utilities, along with manufacturing facilities. It made for some interesting discussions."

Since Georgia Pacific purchased their Advanced Winding Analyzer (AWA) in February 1999, they have tested 206 motors with 21 faults detected. Using 6 hours per motor for an average change out time, multiplied by approximately \$5000 for a replacement, this has shown a savings of \$630,000.00 Regan said, "This lends a payback period on the AWA of about 1.5 months!"