



Newsletter of...  
Flanders Electric

Volume 9

# The Current

Nov. / Dec. 2010

## PMT Acquisition

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On May 11, 2010, Flanders Electric, Ltd., a full service electric motor repair and manufacturing facility, is pleased to announce that they have purchased the assets of Predictive Maintenance Technologies (PMT), formerly owned by Mr. Robert Stokes. Robert will be joining Flanders as Manager of Predictive Maintenance Services. Robert will lead our efforts to continue to provide the same unique services that he has been providing for the past 20 years and to expand this portion of our business to all of our repair facilities.

Over the past 20 years, Robert has developed a motor trending program that measures certain motor characteristics and will trend these beginning when the motor is first put into service and then subsequently checking these same characteristics for several months measuring conditional changes of the OEM impedance value. From these changes and relating them to past documented experiences, Flanders can predict the overall health and reliability of the motor being evaluated.

If you would like more information on this topic, please contact Robert Stokes at [rstokes@flanderselectric.com](mailto:rstokes@flanderselectric.com).

## Training Schedule

### 2010 Flanders Training Schedule:

- **NOV 16** ColoWyo Coal Co., Craig, CO  
EM 2010 MSHA Electrical Re-Qualification
- **NOV 23** Flanders, Pima, AZ  
FL 01 - Developing the Leader Within You
- **NOV 29-DEC 2** PCS Phosphates Aurora, NC  
E-06 Advanced Dragline Control Systems
- **DEC 6-9** PCS Phosphates Aurora, NC  
E-06 Advanced Dragline Control Systems
- **DEC 7** Flanders, Marion, IL  
EE 01B Electrical Basics
- **DEC 8** Flanders, Marion, IL  
FL -03 - Laws of Teamwork
- **DEC 8-10** Flanders, Evansville, IN  
6SE70 Master AC Drive (CUVC)

\*To register, call Flanders Electric at 812-867-7421 and ask for training information or email [feengineering@flanderselectric.com](mailto:feengineering@flanderselectric.com).



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### FE Newsletter Questions or Comments?

Please contact:

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## Business of the Year Award

The Southwest Indiana Chamber of Commerce honored Flanders Electric as the 2010 Business of the Year on October 12, 2010. This recognition highlights and celebrates the accomplishments and contributions of our employees that are making an impact on the Southwest Indiana business community. Family businesses are the backbone of the economy; creating jobs, cementing communities, and building strong cultures. This is what the people of Flanders Electric have done and are striving to continue. Allen Patterson, Chief Operations Officer for Flanders Electric said, "Being honored as the Business of the Year is a fantastic achievement for all at Flanders. We have worked hard to reach this milestone and are extremely grateful for this recognition. We plan to display the award prominently."



**Above and Below:** Allen Patterson, Chief Operations Officer for Flanders Electric, accepts the Business of the Year Award from the Southwest Indiana Chamber of Commerce in Evansville, Indiana



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## FE Electrical Engineers Technical Conference

The Flanders Electric Training Academy's mission is to provide high-quality training experiences within the Flanders organization and externally to customers worldwide. On September 2010, Flanders Electric launched the inaugural Flanders Electric Electrical Engineers Technical Conference. This is expected to be an annual event, bringing together management level electrical staff of mining companies and heavy industry to the Flanders Electric world headquarters in Evansville, Indiana.

Topics covered on September 2010 included Ward Leonard loop control and protection, power quality, AC and DC drives, substation design, and Babbitt and thrust bearings. Sessions also incorporated synchronous motor control & protection and motor design & repair considerations.

Those who attended were able to bring problems and concerns for discussions with instructors, who taught from within their field of expertise. Participants were afforded the time to develop relationships and network with fellow participants, instructors and others within the Flanders organization. Time was spent in classroom lecture and discussion and in the Flanders Electric shops doing lab work and demonstrations.

The time spent in these labs proved to be invaluable to class participants. One of the participants remarked that the best thing about the course was, "The labs in the shop."

This week-long technical conference was highly successful as evidenced by the comments received. One of the participants said, "All instructors are passionate about their fields of expertise. The sharing of knowledge and willingness to have all understand, confirms the passion for their specific field." Another participant said, "Excellent; second to none." A third conference participant offered, "Very good classes; very good people teaching and working at Flanders." The seminar successfully met the needs of those attending as one participant left the following comment: "I feel this week-long course was well structured for mine electrical maintenance managers, planners and electricians."

This week afforded all who attended a chance to gain a great deal of knowledge, increased technical resources and an experience to be long remembered.

For information on our upcoming training academy dates and locations, please contact Jed Jensen, Flanders Electric Training Academy Director, at 307.689.0598 or [jjensen@flanderselectric.com](mailto:jjensen@flanderselectric.com).



**From Left to Right..Back Row:** Bill Wargel/Flanders Electric, Doug Becher/Powder River Coal, Brent Miller/Flanders Electric, Lyle Hilyard/Flanders Electric, Matt Hampton/North American Coal: Sabine Mine, Jim VanEmerick/Cloud Peak Energy, Mark Rasmussen/Prairie Mines; Poplar River Mine, Dan Mayfield/Powder River Coal, Tom Walker/Cloud Peak Energy

**From Left to Right..Front Row:** Travis Hurm/CPE: Cordero-Rojo Mine, Rob Neuman/CPE: Spring Creek Mine, Jed Jensen/Flanders Electric, Ryan Sernecki/Prairie Mines: Sheerness Mine, Rick Scherer/Flanders Electric, Mike Grunwaldt/BHP Mining: Navajo Mine, Al Tressler/CPE: Antelope Mine, George Schofield/Westmoreland Resources: Absaloka Mine



**In Photo Above:** Course instructors and participants discuss a Flanders Electric excavator drive during a lab session

## Migratory Conversions

### How to Update? Migrate!

Flanders' Engineers are often asked, "How can I update controls without major downtime?" For large systems, the typical best practice is a migratory change; moving groups of I/O from old to new in steps. While this can lengthen the overall schedule, the transition can be "fitted" to scheduled maintenance days and downturns. Through a combination of staging and "shadow" testing, the conversions can be further smoothed, verifying new control operation with the legacy system still running the process. After the new controls are verified as a functional match with the old system, the new system is swapped into final location. Minor upgrades are normally incorporated, such as integration of simple motion control into the PLC instead of utilizing as a separate controller, which is typically an obsolete device as well. It is also feasible to decentralize controls at this time, moving I/O close to the actual process sensors and actuators.

For more information on controls migration, please contact us at 812-867-4014 ext. 3331.

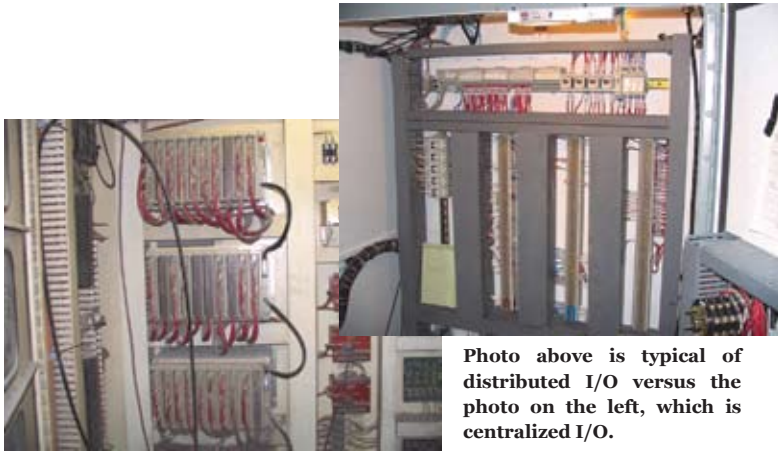


Photo above is typical of distributed I/O versus the photo on the left, which is centralized I/O.



Photo to the right is of an old I/O assembly that was updated with the enclosure in the photo above.



## Nuclear Decontamination Training

Seventeen employees of Flanders Electric have received Radiation Worker Training. With this training, Flanders Electric employees were able to inspect and determine the repairs needed on several 100HP and 200HP motors from a customer that used the motors in a safety related nuclear application. PPE was required during the inspection, which included layers of protection, mostly made of cloth and nylon, from loose radioactive material. After inspection of the motors, the motors were then decontaminated. The motors are now in the repair process at the Flanders Electric Indiana Shop and will be shipped to the customer once complete.

This is yet another way that Flanders Electric has proven that they have the **Power to Perform** when there are special needs of a customer.



Kimbra Parker, Safety Coordinator for Flanders Electric, inspecting a 200HP motor



From Left to Right: Joe Wiener/AC Winder for Flanders Electric, Kimbra Parker/Safety Coordinator for Flanders Electric, Justin Elliott/NDT Tech for Flanders Electric  
Not in Photo: Houston Campbell/Corp. Coordinator for Flanders Electric, Aaron Wright/AC Winding Foreman for Flanders Electric, Keith Lane/ Shop Foreman for Flanders Electric



Justin Elliott/NDT Tech for Flanders Electric inspecting a 100HP motor prior to decontaminating

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## Announcements....

**Come See Us:**

**Dec 8 - 10: 2010 NWMA Meeting & Expo at Booth #1121 & 1123 in Spokane, Washington**

Flanders Florida Field Service Crew– Outstanding Job! During the week of August 9, 2010, Flanders Florida Field Crew was inspected by MSHA while on a customer site. They passed the inspection with no citations being issued. Their dedication and hard work in providing our customers with outstanding quality service and ensuring this work is performed safely and to industry standards is admirable.



**Pictured from L to R:** Donald "Tiger" Strickland, Gabriel Barnhart, Chip Jerkins, Brian Montgomery, Bryan Lambert. **Not pictured:** Willie Sweat, Rusty Ward, Leo Gill, Aaron Wilkerson and Jess Sumner.

Flanders Electric received certification into the SKF Certified Rebuilder Electric Motor Program on July 15, 2010. SKF, the premier innovator of bearing components for industrial machinery, is also a global leader in machine reliability. The company's certification program for electric motor repair service companies recognizes organizations that meet SKF's exacting standards for repair expertise. To earn SKF Certified status, Flanders employees completed extensive training in electric motor failure analysis, bearing installation, lubrication systems and condition monitoring technologies. Certified shops must meet SKF standards in all areas of motor repair and maintenance, and are regularly audited to assure compliance.

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