



SEMPPE

South East Michigan
Power Plant Engineers' Society

A Professional Organization for Engineers and Suppliers of the Powerhouse Industry

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January 2010

join us on the web at **<http://www.semppes.com>**

Volume XIII: Issue I

JANUARY MEETING

Hosted by

Jeff Jensen

Pumps and Systems, Inc.

Presented by

Russel Weiss

Emotron USA – A Toledo-Based Company

The topic is Variable Frequency Drives and Current Energy Incentive\$\$\$

Are you curious as to how you can cut energy costs? Are you up to speed on current energy incentives offered by Detroit Edison? This presentation will discuss how variable frequency drive technology can be implemented into your processes (domestic booster skids, cooling tower fans, etc.), the benefits of such technology, and current incentives offered by Detroit Edison relating to this technology.

Did you know cutting your flow by only 20% can reduce your energy usage by almost 50%? In most cases, this technology has a payoff in just 1-2 years!

Presented by:

Russel Weiss of Emotron USA - A Toledo-Based company.

VP of Sales for Emotron Inc. a Toledo, OH based company that specializes in the Advanced Motor control and load protection components. Russ has been involved in the VFD motor control business for over 30 years with a plethora of knowledge of variable frequency drives applications.

Jeff Jensen of Pumps & Systems, Inc. – Dearborn Heights, MI

Jeff is a Sales Engineer at Pumps & Systems, with over 18 years experience in the pump industry.

Date: January 21, 2010

Time

5:30 – 6:30 Social Hour 6:30 Dinner 7:00 – 7:30 Presentation

Place: **O’KELLY BANQUET HALL**

23663 Park Street

Dearborn, MI 48124

Phone : 313-278-5855

okellybanquethall@att.net

Cost: Vendors: \$ 25.00 per person Engineers: \$ FREE per person

PLEASE R.S.V.P. to Dennis Insley dinsley@advnet.net or call

(810) 650-2809 or fax (810)-367-2154 AS SOON AS POSSIBLE

January Quote

Victory goes to the player who makes the next-to-last mistake."

- Chessmaster Savielly Grigorievitch Tartakower (1887-1956)

President’s Notes

Happy & Prosperous New Year!

To all the members who failed to join us for the Christmas Party, you missed another good time. The food was excellent, the music was great, the ladies were lovely. Bill “Elvis” Juchartz did a great job on the microphone. We are currently waiting for input from the membership on changes anyone might have for this years party. I for one like the location and the party.

In the same vain I would like to thank, Phillip St. George, Eric Cameron and D.J. Conely, Brian Irwin and Nalco, for the prizes at the Christmas 50/50 Raffle.

I would also like to thank Dennis Insley and his better half for the Peanut Brittle.

We are looking for presenters for the coming months, so if any Vendors would like to put one on let us know and we will schedule. It is time to renew memberships if you haven’t done so already.

See you on the 21st.

Chicken Soup for the Engineer's Soul

6&7 TURBO-GENERATOR INSPECTION DELAY.

THE OUTAGES ON THE 110MW TURBO-GENERATORS AT THE FORD ROUGE POWERHOUSE WERE SCHEDULED TO OCCUR EVERY 40,000 HOURS. IN REALITY THEY INSPECTIONS AND OVERHAULS WERE PERFORMED WHEN CONDITIONS ALLOWED. OUTAGES WERE DONE FROM ANYWHERE AFTER 40,000 ALL THE WAY TO OVER 100,000 HOURS DURING WORLD WAR II. IN MOST CASES THE DELAY WAS DUE TO THE AUTOMOTIVE FINANCIAL CONDITION AT THE TIME IT BECAME DUE. THE LAST OVERHAUL WAS DELAYED BY ABOUT A YEAR ON 6&7 TURBO-GENERATOR; ONE DAY WE FOUND THAT THE 1ST STAGE STEAM PRESSURE ON THE UNIT WAS HIGH. WE WENT TO OUR RECORDS FOR THE UNIT, WE KEPT READINGS OF ALL THE PERTINENT INFORMATION ON ALL OUR BOILERS AND ENGINES FOR 1 YEAR AND 1 MONTH. THE INVESTIGATION SHOWED THAT THE PRESSURE WAS NORMAL UNTIL THE UNIT WAS SHUT DOWN THE PRIOR WEEKEND, WHEN IT WAS PUT BACK ON LINE THE 1ST STAGE PRESSURE WAS HIGH. AFTER PERFORMING ALL THE INSTRUMENT CHECKS AND ASSERTING THAT NOTHING UNUSUAL OCCURED DURING START-UP. WE LIMITED THE UNIT TO ABOUT 70MW BECAUSE AT THAT LOAD THE 1ST STAGE PRESSURE WAS 350 PSIG, THE NORMAL PRESSURE AT FULL LOAD. WE ALSO GOT IN TOUCH WITH G.E., MANUFACTURER OF THE MACHINE AND DISCUSSED THE CONDITION WITH THEIR SERVICE REP. WHO CONCURED WITH OUR DECISION TO AVOID FURTHER DAMAGE DUE TO ROTOR OR DIAPHRAGM FAILURE. THE PROPENSITY IS ALWAYS TO PUSH THE ENVELOPE, BUT THE PROBLEM IS IF FAILURE OCCURS THERE IS NO 2ND CHANCE. A COUPLE MONTHS LATER WE STARTED THE PROJECT TO REPAIR THE UNIT. DURING THE INSPECTION FOUND THAT A BOLT HAD WORKED ITSELF LOOSE OUT OF THE NOZZLE BLOCK AND HAD PEANED OVER THE BLADES ON THE ROTOR, RESTRICTING THE STEAM FLOW. THIS CONDITION CREATED A HIGH DIFFERENTIAL PRESSURE ACROSS THAT STAGE FOR WHICH IT WAS NOT DESIGNED. THE BOLT WAS NEVER FOUND, IT WAS JUST GROUND UP. INCIDENTIALLY THE BOLTHEAD WAS NORMALLY DRILLED AND SECURED TO THE OTHER BOLTS BY WIRE. THIS INCIDENT POINTS OUT THE IMPORTANCE OF DOING THE PREVENTATIVE

MAINTENANCE AND GOOD RECORD KEEPING. IGNORING THE CONDITION COULD HAVE BEEN DISASTEROUS. THERE WAS AN ADDITIONAL COST WE INCURRED TO STRAIGHTEN THE TURBINE BLADES.

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If your name was not noted as a new member please let us know and we will add to the next newsletter.

NOTES and COMMENTS

Click for link to 2010 Dues Form: http://www.semppes.com/2010_DuesWebForm.htm

- 1.) Supplier and Engineer Dues are **\$50.00** for suppliers and **\$20.00** for engineers for the year - **2009**
Membership cards are now available. Forms at
<http://www.semppes.com/2009DuesWebForm.pdf>

Please pay at the monthly meeting or mail to our Secretary/Treasurer:
Please include your current address and email address.

SEMPPEs, C/O Tim Turner, P.O. Box 2770, Dearborn, MI 48128

When turning in your membership application please include two (2) business cards. Also please be sure to include your email address and web site on the application.

Attention both Engineering and Supplier members – Please check our website; <www.SEMPPES.com> to assure that your name and company is listed under the “members” heading. If not, please email our Webmaster, Dennis Insley, at dinsley@advnet.net and discuss your listing.

Please note the three headings to search by:
a.) Individual name b.) Subject and c.) Company.

All Engineering members are invited to complete and submit their membership information to be included in our club directory and database.

- 2.) If there are any mistakes on your email address/ mailing label please email corrections to dinsley@advnet.net . Also advise us of telephone number and email address changes to help us keep our files current.
- 3.) The membership roster for both engineers and suppliers is available on the website.
- 4.) SEMPPES Hats and Shirts are a great way to advertise our club to both vendors and suppliers. They make excellent gift items also. There are now hats and golf shirts available with the new SEMPPES logo. The hats are \$20.00 and the shirts are \$40.00. The club has new long sleeve denim shirts with the SEMPPES logo, which are now available.
- 5.) Vendors and Engineers are welcome to submit suggestions for future Presentations or Tours for the

coming year. Presentations & Tours are a great way to introduce the club membership to new technologies, new products or ideas, and to help educate and update us with "what's new" in our industry. They are a truly valuable benefit of SEMPPES membership.

"Help wanted" and "Situations wanted" is another service available to club members. Notices can be published in our newsletter and on the SEMPPES's website.