



INSTITUTE OF POWER ENGINEERS OTTAWA-GATINEAU BRANCH

IPE 478th General Membership Meeting Wednesday April 20th 2016

There were fifteen members and guests at the meeting which took place at Louis' Steak House in Ottawa. The social and dinner started at 5:30 PM to 6:00 PM and the presentation started at 7:00 PM. Bruce Surgeson (Operations Manager), Bob Amyot, and Edward Leith (Sales Representative) were the presenters from "Surgeson Electric". The presenters gave some handouts to the members present. One handout was a six page stapled general outline of the presentation itself and the other handout was an 11 inch by 8(1/2) inch colorful cardboard outline of "Surgeson Electric" and associates (suppliers) about the services that they provide. We can also go to www.surgesonelectric.com. Edward Leith introduced Bruce Surgeson who was the guest speaker who gave most of the presentation which was about vibration analysis. The presentation outline included: the value of vibration analysis, what machines to monitor?, vibration equipment, typical problems detected, parameters of vibration analysis, and a question period with the members present.

The value of vibration analysis enhances the existing maintenance programs and helps in preventive and predictive analysis. Support must be from top management down. This helps the maintenance people to be more proactive and catch problems early. Since the cost of monitoring all of the equipment would be prohibitive, only the critical equipment should be monitored. We should not overlook the small machines that keep the larger machines running (for example, the bearings on a chill water circulating pump that sends water through a large chiller). Large plants like paper mills find vibration analysis to be useful. A vibration pen (a type of vibration equipment that looks something like a pen) is good for overall vibration readings and requires minimal operator training but gives minimal analysis capabilities. A vibration pen with the option of high frequency measurement is useful because bearing and gear faults can be detected. With this kind of vibration pen, the addition of a data logger would trend overall values and it would prove useful in combination with other maintenance programs. A data collector would have true predictive capabilities by looking at frequency analysis. If; for example, a bearing frequency doubled over time then it means something changed in the bearing especially if the bearing temperature goes up as well.

Some typical problems detected would be misalignment, looseness, and gears that improperly mesh or have broken teeth. Parameters of vibration analysis would be displacement, velocity, and acceleration. Displacement would be evident if the shaft connected to the bearing would rotate off center (wobble). Changes in velocity from the normal behavior (hertz or rpms) should be monitored. For rotations above 1000 hertz, use the acceleration parameter (shock pulse test) in monitoring vibration analysis. "Surgeson Electric" has a data base on how various different bearings should perform normally. There was a question period during the

presentation . Bruce Surgeson pointed out that if the base of where the motor is mounted is loose and the motor is running then any small defect in the bearing would be made worse because on each revolution of the shaft ; the whole motor assembly would tip back and forth twice .

Edward Leith mentioned that “ Surgeson Electric “ is perfectly capable of identifying and fixing and helping in preventing vibration problems for their customers . “ Surgeson Electric “ has a full service electric motor repair shop (which is authorized for warranty repair for Baldor , ABB , Armstrong & Sulzer) in Ottawa and Cornwall . Both places have a local inventory . Bruce Surgeson mentioned that choosing a company to do vibration analysis work should also be able to give good support for their customers . The presentation ended at 8 PM .

After the presentation , there was a short break and the meeting started at 8:10 PM . The minutes of the General Membership meeting of Wednesday March 9th 2016 were distributed to the members present to review . Mike Noonan made the motion to accept the minutes of the last meeting . Allan Whetter seconded the motion . The motion carried and the minutes of the previous meeting were accepted . Rick Whitford mentioned that according to Stephane Berger our branch of the IPE has \$2,566.00 in the Bank . Allan Whetter mentioned that the golf tournament will take place on June 3rd 2016 and that the home page of our website has the golf registration information . We can register with our branch or online through our website and we can pay using paypal or by cheque . May 27th 2016 is the deadline for registration for the golf tournament . CHEO will receive 25% of the proceeds from the golf tournament .

Gilles Leclair handed out a sheet of paper to everyone about the Ontario Area Membership report as of March 31 , 2016 . It contained the IPE Ontario branches and the numbers of each branches' paid , unpaid and total number of members . Gilles mentioned that we had a year over year 3% decrease in membership for the last few years . Gilles also mentioned that the people at the Ontario Representatives meeting were looking to change the terms of reference for the Floyd Edwards memorial scholarship . This is to make the scholarship more accessible to students . Allan Whetter mentioned that we have the power point presentation of the April 7th 2016 Kingston meeting with Mike Adams posted on the home page of our IPE branch website . Allan also made a short presentation on the TSSA (technical standards and safety authority) which was the presentation given in Kingston . Allan Whetter also showed the Educational forum that we can find at <http://www.ipeontarioeducation.ca> . The education forum was also called the Chief's conference and it will take place on October 13 and 14 2016 . October 15 2016 would be the AGM (Annual General Meeting) . If you go to this website you can get an overview of the Education forum and trade show and the location of this event and more .

Our branch of the IPE gave \$128.00 to the Ontario initiatives fund last year . There are two more job postings on our website since our previous meeting on March 9th 2016 . There is a Tour planned on June 15th 2016 of a micro – brewery / restaurant in Ottawa . Allan Whetter made the motion to adjourn and Mike Noonan seconded the motion . The motion carried and the meeting ended at 9:00 PM .

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