



INSTITUTE OF POWER ENGINEERS OTTAWA-GATINEAU BRANCH

General Membership Meeting ; Wednesday , January 27 , 2016 .

There were 14 members and guests at the meeting . Some arrived early (before 5:30 PM) and the members had dinner and socialized . The meeting was at Louis' Steak House in Ottawa .

The presentation started at 7:10 PM . TGWT (" Tannin Guys Water Treatment ") was the company that gave the presentation . The three presenters from TGWT were Louis - Philippe Cloutier CEO ; Tito DiMarco , B.Sc. Senior Technical Representative , Ontario ; and Doug Campbell Power Engineer First Class - Senior Technical Representative , Ontario .

TGWT is a cleantech provider . TGWT manufactures and distributes exclusive water treatment additives for steam boilers , cooling towers , air washers and to products to descale . Unique biodegradable products that allow you to reduce your blowdown and generate savings on energy costs up to 15% without investments . TGWT is an international organization selling and servicing in many countries . The presenters mentioned that TGWT is a key player in the field of green chemistry in North America and offers green chemistry for Steam Boilers ; heated and chilled closed loops ; Cooling and Chilled loops with traditional treatments . The presenters mentioned that the GOAL of TGWT was to have the lowest impact on the environment and to save energy while maintaining the integrity of the systems . The presenters gave everyone present at the meeting a handout in the form of a booklet in a three ringed binder to better understand their technology and a better understanding of the energy analysis tool .

The presenters gave a brief history of water treatment . Patents for internal water treatment for boilers go back to 1857 . Most of them involved using natural organic tannins for boiler scale control . In 1863 , a patent was issued for the use of di - sodium phosphate , and in 1887 , a tri - sodium phosphate patent was issued . These early tannins were natural and somewhat expensive and were difficult to test their presence chemically . During the 1930 's , more investigation went into controlling boiler scale . The Navy began using a compound consisting of di - sodium phosphate , soda ash , and cornstarch . Sodium sulphite was being used as an oxygen scavenger . Organic anti - foam agents were in use . These and further developments lead to what we know as " traditional water treatment " . The chemicals used in the traditional water treatment were both cheaper and easier to chemically test than the original natural tannins . In the traditional water treatment ; sulphite was used for oxygen removal for corrosion control ; neutralizing amines for pH control of condensate returns ; filming amines for condensate piping protection ; sludge control for scale treatment (dispersants , phosphates , phosphonates , chelants , polymers) ; caustics for alkalinity boost (if necessary) .

But then things began to change . Phosphates were phased out because of pollution ; chelants were thought to be problematic with metal fatigue and attack on metal ; sulphites were catalyzed for quicker performance ; phosphonates were used to control scale and corrosion ; polymer technology became common sludge control programs ; and finally NEW TANNIN

TECHNOLOGY got started in Europe . The new tannins are genetically modified organisms . The new tannins work much better than the “ traditional water treatment “ .

In 2007 Servivap Canada formed with exclusive rights for NEW Tannin technology in Canada . Purified Tannins are widely used in Europe , USA and started use in Quebec . The presenters showed an independent evaluation in an extract from the international energy agency on “ A review of European and North American water treatment practices “ . Other extracts which also appear in the handouts were from Babcock and Dearborn . The Independent Evaluation concluded that these tannins in alkaline solution , absorb large amounts of oxygen and prevent corrosion in steam boilers .

The presenters showed that the tannins in addition to preventing scaling also deposit a dynamic film on the metal by adsorption and desorption and this means that silica is rejected and remains in suspension in the water . The product contains Tannin and Ammonium Molecule and this protects the steam and condensate . The presenters listed the benefits of Purified Tannins : Good for hot water boilers ; Approved for Aluminum Boilers ; Easy to apply , test and control (one drum product replaces traditional three drum program) ; can be injected with same feed equipment and same location (conversion is easy and does not cost you any extra money) ; allows you cycle your boiler higher thus reducing blowdown , reducing water usage , reducing sewer , reduces chemical usage and reduces fuel and this all saves you money .

There are more benefits of these purified tannins : Clean Boilers (no manual cleaning required) Environmentally friendly . Safe to use and no discharge issues (food approved with W1 classification through CFIA) (safe to use in Dairy steam applications) (KOSHER approved) (all organic . no allergens . It is not dangerous to your health) . There are more benefits of Purified Tannins not listed in these minutes . You can check the website at www.tgwt.com for a lot more detail and scope .

TGWT is a Canadian Company located in Quebec . All products are produced and shipped out of a Quebec production facility . TGWT also has Tannin products for Hot water boilers . Low feed rates provide cost competitive applications . TGWT also treats cooling towers and chilled water . TGWT can provide services for all your needs and TGWT believes that providing services is just as important as the product . There is no lease to sign with TGWT . You may buy product or services from TGWT when you want . The presenters mentioned that they will be at the AGM in Toronto later this year . There was a question and answer session . The Presentation ended at 8:25 PM .

The IPE Branch meeting started at 8:35 PM . Rick Whitford is the new president of our branch of the IPE for 2016 . Everyone present was given a copy of the minutes of our previous general membership meeting of Wednesday October 28 2016 . After everyone read and reviewed the minutes of the previous meeting , Allan Whetter made the motion to propose that the minutes be accepted as they are and Keith McCaig seconded the motion . Everyone present agreed and the motion carried . In business arising from the minutes ; it has not been determined when and where there would be a planned Tour of a Microbrewery . Stephane Berger gave the Treasurer's Report . Our Branch has \$2,489.01 in the Bank as of December 31 2015 . We made money on our employment advertisements that we have on our website . We had changed our service provider for our website late in 2014 . Our old service provider for our website used to charge us in the neighbourhood of \$1000.00 per year . Our new service provider gave us a better website and charged us only \$164.00 for 2015 . This is a saving of \$850.00 per year . After we changed signing authority for cheques at the Bank we also got our name changed at the Bank

to our correct name “ Institute of Power Engineers Ottawa – Gatineau Branch “. We ordered 200 cheques at the Bank (we were running low on blank cheques) . These new cheques will have our name and email address on them .

We then received news about our Golf Tournament for 2016 . Our annual golf tournament will be at Hammond Golf Club on Friday June 3 2016 . Tee off time would be at 1 PM . The deadline for registering for the golf tournament would be May 27 2016 .

We now have eight job postings on our website . Our next meeting is on Wednesday February 27 2016 according to the calendar on our website . We still have to find a guest speaker for this meeting , but were looking for a guest speaker possibly on the subject of vibration analysis .

We talked about our next AGM (Annual General Meeting) to be held in Toronto later this year. We think that the AGM will be held possibly on October 26 – 27 – 28 and 29 ; 2016 . The Plant Chief’s conference ; the Trade Show ; and the Ontario Area Educational Forum should take place at the same time and in the same place as the AGM . The next gathering of colleges should happen sometime in May 2016 at Confederation College in Thunder Bay . Stephane Berger proposed that the meeting should end . The meeting adjourned at 9:40 PM .

Zbyszek Słojewski
Secretary
Institute of Power Engineers
Ottawa-Gatineau Branch