## **ASHRAE Ottawa Valley Chapter**

Chapter Meeting #2, October 16th, 2006 (5:30 p.m.)



Meeting Date: Tuesday, October 16<sup>th</sup>, 2006

Location: La Contessa Banquet Hall, 156 Cleopatra Drive, Nepean, ON

Presiding Officer: President: Glenn MacLean, M. Eng.

Attendance: Total: 67 Guests: 11 Students: 9

Theme Night: TEGA/Student

Table Top: Plymovent Fire House and Commercial Vehicle Exhaust – Walmar

Ventilation

Program: Condensing Heat Recovery from Boiler and Process Exhaust

Speaker(s): Mr. Robert W. Triebe, M.A.Sc., P. Eng.

Thermal Energy International Inc.

Prepared by: Francois Belair, P.Eng. – June 18, 2007

#### **Technical:** (4:30 – 5:30)

A technical seminar was held prior to the meeting, titled, **Dampers 101**. Mr. Doug Graham, Regional Manager, T.A. Morrison Inc. gave a short presentation on:

- Different damper types and their characteristics/applications
- Damper energy calculations
- Damper sizing methods
- Damper trouble shooting

**Social** (5:30 – 6:30)

#### **Business Session** (6:30 –6:45)

- GM opened the meeting and welcomed members, guests and students
- GM introduced the Board of Governors
- IB introduced the guests and students
- Chris fudge thanks Student for their attendance and encourage eligible members to join Young Engineers at ASHRAE (YEA). Chris goes on to thank the members of the student committee for there assistance.
- Joel Primeau invites all members to attend the upcoming Mayoral debate on sustainability. The event will be hosted at the Ottawa Congress Centre by BOMA.
- Christine Kemp announces new chapter members.
- Niraj Chandra discusses the TEGA program and its value to the local chapter. Niraj encourages all members to submit applicable projects.

**Dinner** (6:45 – 7:20)

#### **Business Session-Continued** (7:20 – 7:40)

- Chris fudge thanks Student for their attendance and encourage eligible members to join Young

Engineers at ASHRAE (YEA). Chris goes on to thank the members of the student committee for there assistance.

- Joel Primeau invites all members to attend the upcoming Mayoral debate on sustainability. The event will be hosted at the Ottawa Congress Centre by BOMA.
- Christine Kemp announces new chapter members.
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### **Evening Program** (8:10 - 9:45)

Program: Energy recovery from gas fired appliances Speaker: Mr. Robert W. Triebe, M.A.Sc., P. Eng.

Mr. Robert W. Triebe of Thermal Energy International introduces the audience to the potential of condensing heat recovery from boiler and process exhaust. From their figures, 40-50% of fossil fuel energy is lost through exhaust direct to the environment.

Some of this energy can be recuperated through direct, indirect and water to water processes. Thermal energy technology greatly improves the fuel efficiency of boiler operations providing a significant return on investment, and reducing environmental emissions. Up to 90% of the heat normally lost through boiler flue gas stack emissions is recycled. By direct contact (gas/liquid) with flue gasses, both sensible and latent heat may be recovered even in widely varying operating conditions.

- Reduce energy consumption on gas, oil and biomass burners by 15% to 35%;
- Reduce greenhouse gases and other emissions commensurate to fossil fuel reductions;
- Enjoy full payback on your FLU-ACE® investment in one to three years... and continued savings throughout the unit's 20 year plus operational life;
- Achieve typical water temperatures of up to 63°C/145°F (up to 82°C/180°F) with alternate design);
- Recover 200% to 300% more heat than conventional recuperation and economizer systems ... heat readily usable for process water and air heating;
- Recover and condense between 70% and 90% of the water vapor normally vented in the exhaust gas... providing water for recycling to process;
- Achieve both efficient heat recovery and effective pollution control.

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