

# ASHRAE Ottawa Valley Chapter

## Chapter Meeting #5 – 18 Feb 2014

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| Meeting Date: | 18 Feb 2014                                      |          |             |
| Location:     | Restaurant International, Algonquin College      |          |             |
| Attendance:   | Total: 54  |          |             |
|               | Members: 47                                      | Guests:7 | Students: 0 |
| Theme:        | CTTC   |          |             |
| Tour:         | None   |          |             |
| Tech Session: | None   |          |             |
| Table Top:    | Dadanco – Master Group                           |          |             |
| Program:      | <b>Commissioning Tips, Tricks and Techniques</b> |          |             |
| Speakers:     | David Underwood                                  |          |             |
| Prepared by:  | Abbey Saunders                                   |          |             |

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### **Social** (17:30 – 18:25)

### **Business Session** (18:25 –18:40)

- President-Elect Steve Moons introduced the Board of Governors and Executive.
- Abbey Saunders introduced the guests for the evening.
- Adam Moons welcomed new members.
- Adrienne Mitani reminded members of the upcoming Career Fair.
- The Master Group Dadonco Table Top display was introduced by Chris Fudge.
- Steve Moons discussed the theme of evening meeting, and reminded members of the CTTC technology awards, and encouraged submissions.
- Mike Swayne provided members with a status update on this year's Research Promotion campaign.
- Senators tickets donated by Longhill Energy raised \$385 for ASHRAE Research with Andrei Bronoplinsky of Master Group winning the tickets for the March 16 game versus the Avalanche.

### **Dinner** (18:40 – 19:55)

### **Evening Program** (19:55 – 20:50)

- Prior to program commencement, President-Elect Steve Moons presented Mr. Underwood with an ASHRAE themed birthday cake and a rising rendition of happy birthday in honour of his birthday.
- Following the birthday party, Mr. Underwood commenced his discussions by thanking of OVC members for being so active and reminding us that it is the strength of the volunteers that makes ASHRAE such a successful organization.
- Next the evening program presentation commenced with Mr. Underwood introducing his presentation outline for Commissioning Tips, Tricks and Techniques. Mr. Underwood encouraged attendees to make the evening be more interactive rather than a presentation followed by questions.

- Mr. Underwood proceeded with his presentation which basically involved a series of questions and answers about commissioning fundamentals. Key questions and items of interest were outlined as follows.
- How to Approach Commissioning? Start early and consider an integrated design, the commissioning agent acts as a project facilitator, and follow ASHRAE guidelines.
- The definition of commission as it relates to our industry is a quality focused process for enhancing delivery of a project. Mr. Underwood further elaborated that commissioning is the transfer of the designer's knowledge to the owner.
- The main reason for commissioning any project is to ensure the Owner Program Requirements (OPR) are met, enhance project constructability and educate and train the operators. Commissioning ties the designers, owners and operators together.
- Selecting an appropriate commissioning agent for a project depends on the complexity of the project. To ensure you select the right commissioning agent for your project look to certifications, experience and references.
- Essential documents for the commissioning process include: OPR, basis of design (BOD), commissioning logs and system manuals.
- What is the Value of Commissioning to Owners? In general the outcome of commissioning will benefit owners through the production of comprehensive start-up instructions and detailed maintenance manuals, performance verification through seasonal checks, plus decreased warranty and call back issues.
- Development of a comprehensive OPR for all systems to be commissioned is the best way for owners to ensure they get the best value from the commissioning process. Details to consider during the development of the OPR include: anticipated building uses, appropriate design standards, proposal procedures and operator skill level. Factors that can have an effect on the OPR include: facility objectives, efficiency goals, IAQ requirements, system / equipment access, system operation and maintenance manual requirements, project schedules and specialty project specific requirements.
- When assisting an owner with the development of a commissioning plan the commissioning authority brings the following skills to the table: knowledge of system development, ideas of what typically affects schedule, and knowledge regarding general construction principles and processes.
- When a commissioning authority and owner develop a commissioning process together the commissioning authority should be engaged at the same time as design development and together with the designer and owner should develop performance and acceptance criteria for the various systems.
- Typical documents to be tracked as part of the commissioning process include: changes to the OPR or BOD and verification reports. Under no circumstances should the commissioning authority make changes to the BOD without approval of the designer and owner. The commissioning authority's duty is to look at the design from the standpoint of constructability and with respect to the ability to meet the OPR.
- Training of operators is another important aspect that results for a good commissioning process. To ensure the full benefit of commissioning is transferred to the operators, good quality maintenance manuals, training sessions and refresher sessions should be arranged.
- Post occupancy all commissioning documentation is handed over the owner.
- Generally speaking with the implementation of a good commissioning process, the owner, designer, constructor, operations and maintenance personnel and building occupants all benefit.
- The commissioning process is currently wide varying and not very well standardize across the industry. To date several organizations with ties to commissioning are trying to develop a roadmap to help standardize the commissioning approach within the industry.
- After a brief question and answer period President-Elect Steve Moons thanked Mr. Underwood and the meeting was adjourned at 20:50.