

**ASHRAE TC 1.10 COMMITTEE MINUTES**  
**Montreal, Quebec, Canada**  
**June 28, 2011**

The TC 1.10 meeting was called to order by the Chair, Riyaz Papar, at 3:00 PM.

1. Chair Riyaz Papar welcomed all members and acknowledged the visitors.
2. Self-introductions were made by all present. TC 1.10 has 12 Voting Members, including 1 non-quorum member, of which 5 were present. Hence, a quorum was not established.
3. Secretary Dharam Punwani read the TC 1.10 mission statement.
4. Copies of the draft minutes of the meeting held in Las Vegas (February 1) were distributed to the attendees of the meeting. Votes were not taken because of lack of quorum.
5. Sub-committee Reports:

**a) Programs:** Rich Sweetser

Suggested the following two seminars

*Seminar 1: CHP as a Policy Tool to Meet State Mandates to Provide Clean, Reliable Cost Effective Power*

This seminar could have three presentations by: Sweetser (Clean Power), Hedman (Reliable Energy) and Foley (Cost Effective)

*Seminar 2: Case Studies Showcasing Renewable CHP Systems for Zero Carbon Emissions*

This seminar could have two papers by Hedman (Biofuel-Powered Microturbine CHP System in a Theme Park) and Sweetser (33 MW Woody Biomass CHP Plant Serving a Recycled Paper Mill)

He also recommended that TC1.10 cosponsor with TC 9.7 and 6.2 a seminar on “District energy and CHP higher Education”

No votes were taken on the above because of lack of quorum.

**b) Research:** Riyaz Paper (for Abdi Zaltash)

i) ASHRAE received three bids for “CHP Design Guide – Update to the Cogeneration Design Guide (1996).”

ii) Maria Todorovic presented an RTAR for “Solar-Assisted Geothermal CHP Systems.” In view of some the suggestions received from the TC1.10 members present, she will revise the RTAR and present it again at the Chicago meeting in January 2012

iii) Dharam Punwani presented an RTAR for “Developing Methodology for Carbon Emissions Displaced by Combustion Turbine Inlet Cooling (CTIC).” In view of some the suggestions received from the TC1.10 members present, he will revise the RTAR and present it again at the Chicago meeting in January 2012

**c) Handbook:** Riyaz Papar (for Louay Chamra) and Annette Dwyer

- i) CHP Chapter (#7) was submitted without any modification after TC approval by e-ballot
- ii) Revised CTIC Chapter (#17) was presented. Because of lack of quorum at the meeting, e-ballots will be taken for its approval.

**e) Membership:** The roster needs the following updates:

1. John Andrepont and Al Green roll off and Rich Sweetser and Dragos Paraschiv roll-on as voting member.
2. Louay Chamra resigned as Handbook Chair
3. Jay Jayaraman resigned as Membership Chair

**f) Web Site:** Dragos Paraschiv, webmaster, reported that the TC 1.10 website was up to date. Please contact him with any suggestions for webpage contents.

**g) CTIC:** Annette Dwyer reported that the updated chapter (#17) for CTIC will be submitted for the handbook and also a RTAR will be prepared as reported above by the Research Subcommittee

Chairman's Report: Riyaz Papar reported on items from the TC Chair's Breakfast.

7. Old Business: None
8. New Business:
  - i) CHP short course has been approved and will be presented at the Chicago meeting by Lucas Hyman
9. Adjourn: With no other business to consider, Tim Wagner moved that the meeting be adjourned. Dharam Punwani seconded the motion and it was unanimously approved by all present.

Minutes prepared and respectfully submitted by Dharam Punwani, TC 1.10 Secretary.

### **Mission of TC 1.10**

TC 1.10 is concerned with cogeneration systems, their cycles, and components including heat recovery, energy conversion, and system integration, including for example Combustion Turbine Inlet Cooling (CTIC). The systems provide both power (electric and/or shaft) and thermal energy (heating and/or cooling) and are variously known as cogeneration systems; trigeneration systems; combined heat and power (CHP); combined cooling, heating, and power (CCHP); and integrated energy systems (IES).