# AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC. 1791 Tullie Circle, N.E./Atlanta, GA 30329 404-636-8400

#### TC/TG/TRG MINUTES COVER SHEET

(Minutes of all TC/TG/TRG Meetings are to be distributed to all persons listed below within 60 days following the meeting.)

DATE June 30, 2015

TC/TG/TRG TITLE	Cogeneration Sy	ystems				
DATE OF MEETING_	June 30, 2015			LOCATION		Atlanta, GA
MEMBERS PRESENT		YEAR APPTD	MEMBER	S ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Dharam Punwani		2014	Sriram So	masundaram	2012	Tim Wagner
Annette Dwyer		2014	John And	repont	2012	John Molnar
Dragos Paraschiv		2014	Harold Sr	nith	2012	Mark Davis
Lucas Hyman		2014				Bill Ryan
Richard Sweetser		2011				Siir Kilkis
Geoffrey Bares		2011				Jason Woods
Birol Kilkis		2013				Carrie Anne Crawford
						Jerry L. Casey II
						Blake Ellis
						Alamelu Brooks
						Daniel A. Betts
						Anthony York
						Jay Jayaraman
DISTRIBUTION						
		Members o	f TC/TG/	TRG plus the		
TAC SECTION HEAD: TAC CHAIR:				Nadar R Jayaraman Dr Eric W Adams, PhD		
ALL COMMITTEE LIAISONS AS SHOWN ON TC/TG/TRG				Chapter Technology Transfer Mr Alexander Weiss, PE		
ROSTERS:				Chair		,
				Research Liaison		Mr Arthur L Giesler
				ALI/PDC		Dr Darin W Nutter, PE
				Handbook Liaison		Mrs Annette Dwyer
				Standard Liaison		Dr Arsen K Melikov, PhD
				Staff Liaison		Mr Michael R Vaughn
Manager Of Standards				Stephanie Reiniche		
Manager Of Research & Technical Services				Mike Vaughn		

TC/TG/TRG NO TC1.10

## ASHRAE TC 1.10 COMMITTEE MINUTES Atlanta, GA June 30, 2015

The TC 1.10 meeting was called to order by the Chair, Dharam Punwani, at 3:31 PM.

- 1. Chair Dharam Punwani welcomed all members and acknowledged the guests.
- 2. Self-introductions were made by all present. TC 1.10 has 9 Voting Members of which 6 were present. Hence, a quorum was established.
- 3. Secretary Dragos Paraschiv read the TC 1.10 mission statement.

**Mission Statement:** TC 1.10 is concerned with cogeneration systems, their cycles, and components including heat recovery, energy conversion, and system integration. 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).

- 4. Copies of the draft minutes of the meeting held in Chicago, IL were distributed to the attendees of the meeting. Annette Dwyer made a motion to approve the minutes of the meeting (with the corrections noted by Mark Davies and Dharam Punwani). The motion was seconded by Richard Sweetser and approved (6, 0, 0, 3, CV).
- 5. Mr. Jay Jayaraman, Section Head, and Ms. Annette Dwyer, ASHRAE Handbook Liaison attended the meeting.

#### 6. Subcommittee Reports

a. Programs: Rich Sweetser

No seminars sponsored by TC1.10 at this conference.

#### Orlando Proposals:

Proposal for Seminar sponsored by TC1.10, co-sponsored by TC6.2 and TC 8.3: Presenting ASHRAE's New CHP Design Guide and eTool (presenters: Richard Sweetser and Gearoid Foley)

TC 6.2 intends to submit a program proposal for a District Energy Seminar and our committee can be a cosponsor since some of the case studies include CHP (for example Reedy Creek). A vote on the program proposal is needed at the Annual meeting in June.

Motion to approve the above program was made by Rich Sweetser, Annette Dwyer seconded the motion.

Approved, 6,0,0,3 CV

Birol Kilkis suggested for a future conference a topic that may expand the scope of TC1.10: cogeneration with renewables. TC 6.7 Solar Energy Utilization could be the lead and TC1.10 co-sponsor.

#### b. Research: Dragos Paraschiv

Dragos attended the research meeting on Monday and announced the following:

There are 59 active research projects with \$11 million in total value.

At the Chicago meeting, RAC evaluated 4 RTARs (3 accepted with comments, 1 rejected with comments), 8WSs (5 conditionally accepted, 2 returned with comments, 2 rejected with comments).

RAC is soliciting concerns and suggestions that can increase the research process efficiency for proper utilization of ASHRAE research funds and volunteer time.

#### TC 1.10 Research

Dragos attended the research subcommittee chairs' meeting on Monday and announced the following:

- There are 61 active research projects for a total value of \$10 million
- 9 RTAR evaluated (3 accepted, 4 accepted with comments, 2 rejected)
- 8 WS evaluated (4 accepted, 1 conditionally accepted, 1 returned, 2 rejected)
- A new Research Liason for TC1.10: Shinsuke Kato

#### CHP Design Guide Update:

The new guide will be presented after publication at one of the next ASHRAE meetings.

Update the ASHRAE Design Guide for CTIC Systems – 1762-RTAR:

The RTAR was approved by RAC for further development into a work statement (WS). Dragos Paraschiv, offered to contribute to writing the WS with contributors from TC1.10, TC6.2 and TC6.9.

#### c. Handbook: Lucas Hyman

Chapter7: Lucas Hyman

Chapter 7 was revised, reviewed and then approved by electronic ballot. It was submitted to ASHRAE and proofs are expected this summer.

Chapter 8: Dharam Punwani

ASHRAE due date for final submission is July 23, 2015. The CTIC subcommittee reviewed and discussed the changes, references and bibliography section need to be updated. TC should vote through electronic ballot.

#### d. CTIC Subcommittee: Annette Dwyer

Annette Dwyer reported that 6 members attended the subcommittee meeting:

The CTIC Handbook (Chapter 8) is discusses above.

There are no Programs planned.

Research: CTIC Design Guide Update RTAR is discussed above.

The subcommittee is looking for volunteers for the chair position in the future.

#### e. Membership: Dharam Punwani

Dharam Punwani reported that currently we have nine (9) voting members. On June 30, 2015, 3 members will roll off (Geoff Bares, Dragos Paraschiv and Richard Sweetser). Blake Ellis, Tim Wagner and Gearoid Foley will become Voting Members.

All other subcommittee positions are staying the same.

#### f. Web Site: Dragos Paraschiv

Dragos reported that the TC 1.10 website was up to date. Please contact him with any suggestions for webpage contents.

Jay Jayaraman announced that the new TC website template is in testing and it will improve the way information is presented, as well as offer a private section for TC members.

#### g. Honors & Awards: Dharam Punwani

No nominations from TC1.10 at this meeting. Jay Jayaraman received a Distinguished Service Award mainly for contribution within the TC.

#### h. ASHRAE Standard 100

Richard Sweetser presented an update on the Energy Efficiency Standard for Existing Buildings (Standard 100), which is technically unfair to mixed-fuel buildings (CHP and District Energy examples). He said that Standard 100 was approved by the ASHRAE Board. He reported that SSPC 100 is dealing with the site/source energy issue, under the standard continuous maintenance process. SSPC 100 recognizes that CHP and district energy are problematic for the standard and is seeking solutions, but the process is slow.

#### i. Standards – SPC204P: Mark Davis

Mark reported that the draft of the standard was provided at the end of May to the subcommittee. Comments were discussed at the subcommittee meeting in Atlanta and will be addressed by teams divided per sections. The subcommittee intents to vote the standard document at the next meeting in Orlando, and then submit to ASHRAE for public review.

#### 7. **Chairman's Overview and Report:** Dharam Punwani

Annette Dwyer attended the TC Chairs' Breakfast Meeting and reported the following highlights:

- ASHRAE is interested in TC activity that could impact or benefit the residential sector
- The Section Head requested TC input regarding a new mandatory TC leadership position focused on membership to attract and mentor new and potential members
- TAC sees a need to form a new MTG on the general topic of occupant behavior in buildings and its impact on building energy use and IEQ factors and is now seeking interested TCs and individuals to help develop a formal MTG proposal
- Provisional Corresponding Member (PCM) Process: TC membership subcommittee to follow up with the provisional members if they wish to become TC members
- Thank You Letters to Employers can be requested on line
- 2015-2016 Hightower Award Nomination, Service to ASHRAE Research Award Nomination are due on September 1th.
- ASHRAE is encouraging members to update their online BIOs, a new input field titled Employment Discipline was added to the online member biographical input form, and TAC would like members to self-declare their employment discipline.
- A new MTG have been formed MTG.O&MEE Operations and Maintenance that Impacts Energy Efficiency, our TC can have a voting representative if any member is interested.
- TC activity form is considered for the Top TC Award.

#### 8. **Old Business:**

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#### 9. **New Business:**

Dharam Punwani announced that there is a webinar coming up on July 22 organized by CHP Association and EPA CHP Partnership – Scoring LEED point with CHP.

Bill Ryan announced that TC 8.3 is developing an RTAR to update a 20 yr old Application Guide for Absorption Chillers. TC1.10 will be asked in Orlando to co-sponsor the RTAR.

Meeting Times for 2016 Winter Conference in Orlando: (Tuesday – Jan 26, 2016)

TC 1.10 Handbook, Program, Research, CTIC, Membership Subcommittee 1:00 pm – 3:00 pm

TC 1.10 main meeting from 3:30 pm - 5 pm

### Adjourn

Annette Dwyer moved that the meeting be adjourned. Geoff Bares seconded the motion and it was approved (5, 0, 0, 4, CV).

Minutes prepared and respectfully submitted by Dragos Paraschiv, TC 1.10 Secretary.