

**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.)**

TC/TG/TRG NO TC 8.6 DATE June 27, 2007

TC/TG/TRG TITLE Cooling Towers and Evaporative Condensers

DATE OF MEETING June 25, 2007 LOCATION Long Beach, CA, USA

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Tom Bugler (Chair)	2003	Bing Chwen Yang	2006	Kaye Flamm
Dick LeClaire	2004	Brian Cooper	2003	Paul Lindahl (Vice Chair)
Michael Patton	2005	John New	2004	Frank Morrison (Webmaster)
Vladimir Fedkiw	2006			Leon Shapiro
Russell Lindemann (HB)	2003			Mike Beda
				Ron Wood
				Jon Cohen
				Guy Perrault
				Jeff Clarke
				Eric Lee
				Peter Demarkos

Others present: Chuck Sanderson, Scott Mayes, Robert Davis, Gloria Sanderson

DISTRIBUTION

All Members of TC/TG/TRG plus the following:

TAC Section Head:	Vin Gupta
TAC Chair:	Patricia Graef
All Committee Liaisons As Shown On TC/TG/TRG Rosters:	Steve Skalko, Ron Bailey, Lynn Werman Michael Middleton, Gordon Holness
Manager Of Standards Manager Of Research & Technical Services	Claire Ramspeck Mike Vaughn



ASHRAE

American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc.

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Minutes of the Long Beach, CA, USA TC8.6 Cooling Towers and Evaporative Condensers Meeting held on June 25, 2007

Note: These draft minutes have not been approved and are not the official approved record until approved by this committee.

Meeting Location: Hyatt Regency Long Beach, CA Room – Hyatt Regency Ballroom E

Scope: TC 8.6 is concerned with cooling towers, evaporative liquid coolers and condensers, spray ponds, and other types of contact type liquid to air exchangers and applications to complete refrigeration systems, including water treatment.

Preliminaries [T. Bugler]

The meeting was called to order by the Chairman, Tom Bugler, at 2:17 PM.

Attendance was taken. Of the 9 voting members, 5 were present, constituting a quorum. There were a total of 15 other attendees at the meeting.

The minutes of the Dallas meeting were presented for review.

Motion by R. LeClaire, Approve the Chicago Winter Meeting Minutes as presented. Seconded by R Lindemann. No discussion. **Motion carried 4-0-0 CNV.**

Review of Section 8 Breakfast Meeting Items [T. Bugler] (6:30 AM Sunday Morning)

Rosters:

Current rosters are not available from ASHRAE. The Chair will make corrections once it becomes available and return it to HQ.

Member Biographies:

Due to a recent software change, all ASHRAE members, including members of this TC, will need to review and update their Electronic Online Biographies.

NYC Meeting notes:

As a condition to present on a program, presenters will be required to allow ASHRAE to record voice of the presentation.

Due to restrictions with the New York State accreditation review process, 20 Programs for PDH will be represented from past ASHRAE meetings.

Due to overwhelming opposition, the new policy of charging meeting fees for program presenters and chairs has been rescinded effective for the NYC meeting.

An ASHRAE Thank-you letter can be arranged by The Chair. Please let Tom Bugler know if you wish a letter of thanks from the Society President to be sent to your employer.

ASHRAE Liaison Reports

No Liasons present to report.

Membership [T. Bugler]

TC8.6 currently has 9 voting Members and 2 International voting members

July 1, 2007 Official Roster changes:

Alfredo Sotolongo remains a VM due to clerical error regarding his election date

Brian Cooper term as VM expires and he will become a CM

Add Jon Cohen as a Voting Member. Jon will take the duties of ALI (PDC) coordinator

Add Chuck Sanderson as a Voting Member (CW Sanderson)

Add Guy Perrault as Corresponding Member

Handbook [Russ Lindemann]

Lindemann asked for volunteers to begin the review process for 2012. Bugler suggested that links referencing the chapters for TC 3.6 and other applicable handbook chapters.

The new time for the Sunday meeting was better, though attendance was thin. Bugler will try to improve the time by scheduling to eliminate conflicts with the TC 3.6 R/HB/P Subcommittee meetings at 3:00 pm Sunday.

Standards [T. Bugler for B. Shriver]

STD 64-2005 *Methods of Laboratory Testing Remote Mechanical-Draft Evaporative Refrigerant Condensers (ANSI Approved)*. The committee should consider either a revision or reaffirmation for 2010.

Research [P. Lindahl for J. New]

RP 1307: Fill Removal and Disinfection for the control of legionella bacteria. This project is under the auspices of TC3.6, with TC 8.6 co-cognizant. The project has concluded without progressing to the biological testing phase due to problems with construction of the testing cell apparatus. Paul Lindahl, member of the Project Monitoring Sub-committee reports that air and water flow rates could not be achieved due to construction and installation problems at Northwestern University. The recently issued World health Organization document on water safety may indicate that the project continues to be worthwhile. AWT co-funding could be re- affirmed if the project was re-bid.

WS 1361: Project was bid, and there were respondents to the bid. Evaluation of the proposals is ongoing. Due to meeting time realignments for the Long Beach meetings, the PES may delay recommending to TC 3.6 on a bidder to a between meeting ballot.

Proposed RP – T. Bugler: Non-invasive flow devices for refrigerant mass flow. No progress on this item. Lindemann, Morrison, Trevor Hegg, Cohen and Patton agreed to craft an RTAR.

What are the facts and trade-offs relative to energy and water consumption for wet and dry HVAC cooling systems. LeClaire to chair, Mayes, Sanderson, Lindahl, Bugler volunteered.

Programs [A. Sotolongo]

Shapiro, as the moderator, reported on the Forum titled Resource Conservation Utilizing Evaporative Heat Rejection Systems. Approximately 30 diverse attendees were present. Numerous topics for program and seminars were suggested requiring further development. Potential Seminar for New York as a further development on the forum topic.

*Motion by D. LeClaire - First Priority Seminar for New York titled Balancing energy and water conservation in HVAC cooling systems, a total consumption approach. Second by M. Patton **Motion carried 5-0-0 CV**. Shapiro volunteered to chair the seminar.*

Water Treatment [P. Lindahl for Dave Geary]

SPC 188P "Prevention Practices for Legionellosis in Building Water Systems" has convened several sessions during this meeting.

As such, the TC 3.6 meeting is different than normal. For this meeting only it is Wed at 1:30pm – 3:30 pm, LBCC Rm 102C.

STD 90.1 and CA Title 24 Issues [Paul Lindahl]

Morrison reported that the TC8.6 subcommittee recommended efficiency numbers for closed circuit equipment for inclusion to STD 90.1. Attached to these minutes are the letter of submission to 90.1 for Closed Circuit Cooler which was approved between meetings by this committee by electronic ballot. The 90.1 Mechanical Sub-committee and full committee yesterday approved the CM for the Fluid Cooler definition. Frank Morrison as sub-chair wished to thank the efforts of Paul Lindahl, Dick LeClaire, Tom Bugler, and Ron Wood.

Lindahl: Other issues that are pending at 90.1 mechanical subcommittee are the review of liquid to liquid Heat exchanger provisions of ARI400, and the effect of CT approach on energy efficiency and the possibility of requiring minimum approaches. He will continue to monitor these topics and report if TC8.6 needs to have official input.

Lindahl reported that the 90.1 2007 addendum publish date has been delayed slightly.

California Title 24 is up for review in 2010 and the hearing process has commenced. Discussion is needed to determine what if any changes TC 8.6 may need to input.

Lindahl encouraged interested parties to review STD 189P Green Building Performance Standard which is undergoing verbal review at this meeting. Some key issues related to this committee include minimum cooling tower approach temperatures for sizing equipment, and permitting a minimum of 5 Cycles of concentration for water treatment programs.

WEB-Site [Frank Morrison]

Web site is up to date. If members of sub-committee chairs have any materials they wish to include on the website, please either talk to Frank about posting options or get those materials to him for inclusion in website.

Morrison suggested that all interested parties on TC 8.6 activities register email notifications with the List Serve to automatically get updates.

Old Business:

None

New Business

C. Sanderson – had received information that the ASHRAE HQ renovation was not going to be water cooled, and that Chuck thought that it was some sort of air cooled HVAC System. Chairman Bugler to inquire.

Adjourn

Motion by M. Patton – Motion to adjourn. Second by R. Lindemann.
The meeting adjourned at 4:20 PM.

Respectfully submitted,

M. Patton, TC8.6 Secretary