

**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 3.2 DATE January 23, 2012

TC/TG/TRG TITLE System Chemistry

DATE OF MEETING January 23, 2012 LOCATION Chicago, Illinois

| MEMBERS PRESENT | STATUS | MEMBERS ABSENT | STATUS | EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE |
|------------------|----------|--------------------|--------|--|
| Raymond Thomas | Chair/VM | Katrin Juch | CM | Knut Petry |
| Alan Cohen | VM | Kirsten Ahrenstorf | IM | Alice Reimer |
| Danny Halel | Sec/NVM | Dave Vincent | Web/VM | Rasmus Poulsen |
| Rob Yost | SSC/VM | Barry Milward | CM | Frank Nagy |
| Warren Clough | VM | Tony Min | CM | Richard Kelley |
| Rosine Rohatgi | VM | Joe Nigro | CM | Roberto Urrego |
| Sonny Sundaresan | HBC/VM | Charlie Butler | CM | Brett Van Horn |
| Robert Woods | VM | Liz Dixon | RSC/IM | Pat Gilbane |
| Julie Majurin | VM | David Bellas | CM | Ted Li |
| Scott Gustafson | ALI/CM | Richard Cavestri | CM | Adrienne Diebold |
| Ken Lilje | PSC/VM | Donna Bossmann | CM | Chris Reeves |
| Jay Field | CM | Clinton Finstad | CM | William Murphy (Section Head) |
| Dale Carr | CM | Sunil Nanjundaran | CM | David Blain |
| Joe Karnaz | CM | Andrew Gbur | CM | Brett Van Horn |
| Marc Scancarello | PCM | John Manselas | CM | Tony Korba |
| Thomas Leck | CM | Amy Rice | CM | Ed Hessell |
| Dan Wright | CM | | | Brad Boggess |
| Yanwei Cen | CM | | | Hewitt Gaudin |
| Jorge Cabrera | CM | | | Ramon Pons |
| Eric Newberg | CM | | | |
| Chris Seeton | CM | | | |
| Stephen Kujak | CM | | | |

DISTRIBUTION

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

| | |
|---|---|
| TAC Section Head: Bill Murphy | |
| TAC Chair: Charles Wilkin | |
| All Committee Liaisons As Shown On TC/TG/TRG Rosters: Ray Cohen – Research (In attendance) | Douglas Abramson – Standards John Clark – Special Pubs |
| Manager Of Standards Manager Of Research & Technical Services | Stephanie Reiniche Mike Vaughn |

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

APPROVED BY TC 3.4 BY UNANIMOUS VOTE AT THE SAN ANTONIO MEETING June 2012

Call to Order

Dr. Raymond Thomas, Chair, called the meeting to order at 2:20 pm on Monday, January 23, 2012. The meeting was held in the Monroe Room of the Palmer House Hilton in Chicago, IL. After the introduction of members and guests, a quorum was confirmed with 7 members present (including chair) 0 International Members with 2 members absent.

The Agenda was approved as written.

MOTION #1 A motion was made by Ken Lilje and seconded by Julie Majurin to approve the Minutes from Las Vegas as corrected. (Two editorial changes)

MOTION PASSED 7-0-0 CV

Report on TC 3.0 Chair Breakfast Meeting

Roster Update – ASHRAE is developing a “new and improved” web driven roster update system. It may come on board in late 2012 or early 2013.

ASHRAE wants to remind all SC Chairs and members that meeting may be held Online through a Webinar or a Live Meeting.

At this meeting in Chicago, ASHRAE is holding two TC meetings Online. This is not a beta test, just one to see if the technology exists and how it functions. TCLS asks the committee to discuss and get a feel for the ideas/support/non-support etc. for holding TC meetings online. There was some discussion about this; basically the conversation was not in support of this. Great concerns were voiced on several subjects:

- If quorum is reached for the meeting because of the participation of voting members online – how can security be monitored if the committee goes into Executive Session.
- Many members may be advised by their company to not come to ASHRAE meetings because they can be attended online. This will reduce income to ASHRAE with less potential members signing up for the meeting.

MOTION #2 A motion was made by Ken Lilje and seconded by Julie Majurin that TC 3.2 does not support on-line TC meetings and that ASHRAE not pursue this for Technical Committees. This type of meeting however, is an excellent tool for SC meetings.

MOTION PASSED 7 – 0 – 0 (CV)

Upcoming meetings

- San Antonio – June 23-27, 2012
- Dallas January 26-30, 2013

Sub-Committee Reports

Program – Ken Lilje

-  Conference Paper Abstracts for San Antonio were due Sept. 26, 2011.
-  Seminar and Forum Proposal for San Antonio are due February 13, 2012

The Board of Directors in Montreal voted that in the 2013 meeting in Dallas – the free registration for Chair and presenters will go away; the presenters will be charged 25% of the standard charge. Ken will seek a clarification for Chairs.

Over the past three years this TC has submitted several Programs for the meetings. All of them have been refused. We do not know why except that we were told that we did not make the cut.

Chicago

- No Programs

San Antonio

- No Programs

Dallas

- No Programs

Potential Programs

- None

Handbook –

Chair Raymond Thomas asked for a volunteer to Chair the Handbook Sub-Committee, with no volunteers the Chair will pursue a volunteer outside of this meeting.

Jay Field mentioned that there is a new Technical Committee on Environmental Chemistry. The Handbook Committee needs to move this information to the proper TC.

Sonny and Jay have volunteered to be a member of the committee

- The Handbook Liaison Ramon Pons was at our meeting. He advised that the next rewrite for the 2014 Edition is due May 25, 2013.

Standards –Rob Yost

- SPC 175 – “Metal Pressure Vessel Method to Test Materials Used with Refrigeration Systems”
 - Joe Karnaz – Chair. Committee members are Alan Cohen, Ken Lilje, Rosine Rohatgi and Chris Seeton, they meet at 4:15 pm on Monday. The committee is very close to a final draft. Mr. Karnaz believes that the document will be ready for San Antonio.
- SPC 97-2007 – Sealed Glass Tube Method to Test for Chemical Stability of Materials for Use Within Refrigerant Systems Chris Seeton is Chair. References are out of date. A call for members was put out, there were not enough members for the meeting to be held Chicago. The Chair will continue to look for members.

Research – Liz Dixon/Joe Karnaz

Liz Dixon could not attend the meeting – Joe Karnaz spoke in her stead.

Research Liaison – Don Bivens

Don Bivens is our Research Liaison – we need the follow up paperwork to pay Spauchus Associates for their work on

- RP 1409 – Stability of Candidate Lubricants for CO₂ Refrigeration Systems The report is available on the ASHRAE website and in the Bookstore.
- WS 1410 – Effects of System Materials Towards the Breakdown of POE Lubricants and HFC Refrigerants Part 2 – Accepted for bid by ASHRAE RAC October 2009. Project Monitoring Sub-Committee includes: Jay Field, Joe Karnaz, Mark Scanarello and Steve Kujak - Chair. Spauchus Associates was awarded the contract and the committee has met with Rosine Rohatgi to start the work.

Research Sub-committee met and generated some new possible research subjects including:

- Longer term testing on compatibility of materials with Lubricants and Refrigerants
- Refrigerant options with Low GWP refrigerants (HFO's HC's and HFC's) what data is missing.
- Sub Committee to work with AHRI and work on joint research ideas and funding. The SC members are Jay Field, Joe Karnaz, Alice Reimer, Warren Clough and Mark Scanarello.

R-40 is presently being counterfeited as R-134a. R-40 is very reactive and we need to write an RTAR addressing “Reactivity of R-40”

MOTION #3 A motion was made by Warren Clough and seconded by Julie Majurin to write an RTAR entitled “*Reactivity of R-40*”. The committee will be comprised of Rob Yost, Steve Kujak, Warren Clough and Mark Scancarello.

MOTION PASSED 7-0-0 CV

Webmaster – Dave Vincent

Dave Vincent was not at the meeting however, the Chair reported that:

- The website is up to date and accessible on the ASHRAE website.

Membership – Ken Lilje

The roster was reviewed and the Chair advised that if anyone in the room wanted to join this Committee please see the Chair. .

The Chair asked for additional members if anyone was interested. Rob Yost has asked to come back on as a Voting Member..

Voting Members – 9 International Members - 2 Corresponding Members – 37

Leadership of the committee as of July 1, 2011:

| | |
|---------------------------|---------------------------------|
| Raymond Thomas – Chair | Kirsten Ahrenstorf – Vice Chair |
| Danny Halel – Secretary | Ken Lilje – Program |
| Rob Yost – Standards | Elizabeth Dixon – Research |
| David Vincent – Webmaster | Scott Gustafson – ALI |
| OPEN - Handbook | |

Old Business

- No old business was brought forth to the committee.

New Business

MTG Proposal – Multi-disciplinary Task Group – Alternative Lower GWP Refrigerants - The MTG is looking for members and they approached Joe Karnaz who will represent 3.4. Sonny Sundaresan has volunteered to be the voting member, Ray Thomas will e-mail the MTG Chair with Sonny as the Voting Member. Tom Leck will advise the MTG Chair that he would like to serve as an Alternate member.

Jay Field asked for the floor and advised the committee that Dr. Dietrich Huttenlocher died in November 2011 at the age of 83. Jay shared that Dietrich grew up in Germany during WWII and he and his family came to the United States in 1948. Steve Kujak also advised that Dr. Robert Doerr died at the age of 70, in late September 1, 2011.

These two members have over the last 3+ decades been very influential in the workings of this TC and Section 3. They have served as Subcommittee Chairs and Technical Committee Chairs. Their passing will be felt not only by this TC, but also Section 3 and ASHRAE.

The Chair asked for a moment of silence in tribute to these two valued colleagues.

Adjournment

The meeting was adjourned at 4:05. By Chair Dr. Raymond Thomas.