

AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR-CONDITIONING ENGINEERS, INC.

1791 Tullie Circle, NE, Atlanta, GA 30329
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TC/TG/TRG MINUTES COVER SHEET

(Minutes of all meetings are to be distributed to all persons listed below within 60 days following the meeting.)

TC/TG/TRG No. 3.2

Date: May 15, 2001

TC/TG/TRG TITLE: Refrigerant System Chemistry

DATE OF MEETING: - Jan 29, 2001

LOCATION: - Atlanta, GA.

Voting Members Present	Voting Members Absent		
Ken Lilje [02] David J. Vincent [02] Alice Riemer [03], International Member Warren Clough [03] Robert Doerr [03] Horst Thamm [03] International Member Alan Cohen [03] Cary Haramoto [03] Dietrich Huttenlocher [03] Joe Karnaz [03] Michael Glenn Lacey [04] Glen L. Steinkoenig [04] Sonny Sundaresan [03] David Wilson [03]			
Ex-Officio Members and Additional Attendance			
Xiaomei Yu (CM)	Jim Bouril (CM)	Yanwei Cen (CM)	Sue Correll (CM)
Gary Dudley (CM)	Jay Field (CM)	Danny Halel (CM)	Joel Kerstein (CM)
John Kuca (CM)	Lois Lin (CM)	Frank Nagy (CM)	Jill Oberle (CM)
Wayne T. Sumi (CM)	Raymond Thomas (CM)	Rob Yost (CM)	Andy Gbur
Axel Kriegsmann	Bill Landmann	Bob Woods	Chris Seeton
Doug Gehring	Doug Gildehaus	Frank Hillerns	Geoff Armitage
Hank Balduzzi	Joern Thomsen	John Byrne	Mark Goodin
Mike Blanford	Phil Beckler	Ranko Pilic	Rich Cavestri
Rosine Rohatgi	Shoichi Tominaga		

DISTRIBUTION:

All members of the TC/TG/TRG

TAC Chairman: Edward Gut

TEGA LIASONS: Marvin Ginsburg [01]

TAC Section Head: Bill Murphy

LIAISONS:

ASHRAE STAFF LIAISONS:

Program: John Bisset [03]

Research: Bill Seaton []

Journal: Thomas Reinarts [02]

Handbook: Roberto R. Aguilo [2002]

Research: David Geary

Handbook: Bill McCartney

Standards: Neil Leslie

Standards: Claire Ramspeck

Special Publication: Joseph Driscoll [01]

Technical Services: Martin Weiland

Additional Distribution:

ASHRAE TC/TG/TRG ACTIVITIES SHEET

TC/TG/TRG No. 3.2

Date: Jan. 29,2001

TC/TG/TRG TITLE: Refrigerant System Chemistry

CHAIR: Ken Lilje

VICE CHAIR: David J. Vincent

SECRETARY: Alice Riemer

TC/TG/TRG MEETING SCHEDULE

Location Past 12 months	Date	Location planned : next 12 months	Date
Seattle	6/99	Cincinnati	6/01
Dallas	2/00	Atlantic City	1/02
Minneapolis	6/00	Honolulu	6/02

TC/TG/TRG SUBCOMMITTEES

Function	Chair
Program	Debra L. Pierce
Handbook	Robert Doerr
Standards	Xiaomei Yu
Research	Warren Clough
Membership	David J. Vincent

RESEARCH PROJECTS CURRENT

Project Title	Contractor	Monitoring Comm. Chair	Report
1027-TRP "Chloride, Fluoride and Acidity Measurements in Refrigerants".	Spauschus Associates		Approved
1158-TRP "Effects of System Materials towards the Breakdown of POE Lubricants"	Spauschuss Associates		

LONG RANGE RESEARCH PLAN

Rank / Title	W/S Written	Approved	To R&T
1211-TRP "Mechanism for Reaction between Polyolester Lubricant and Ferrous Metals".		10/00	

HANDBOOK RESPONSIBILITIES

Year & Volume	Chapter & Title	Handbook Subcomm. Liaison
2002 Refrigeration	5: Refrigerant System Chemistry	Bob Doerr

STANDARDS ACTIVITIES : List and Describe Subjects

SPC 141P: MOT/Fluorocarbon Refrigerant for Contaminants

Standard 97: Sealed Glass Tube Stability Test

SPC 175P: New Standard to be developed for Pressure Metal Vessels

TECHNICAL PAPERS from Sponsored Research :Title, when presented

6/99 Equilibrium Water Capacity of Desiccants in Mixtures of HFC Refrigerants and Appropriate Lubricants (RP-867)

6/99 Study of the Fractionation of Refrigerant Blends in Contact with Lubricants and Measurement of the Solubility, Density and Viscosity. (RP-867)

TC/TG/TRG Sponsored Symposia :Title, when presented

6/00 Refrigerants System Chemistry Update

6/99 Flammability Test Methods (With TC 3.1)

1/98 New Learning in System Chemistry for New Refrigerants and Lubricants (with TC 3.3 and 3.4)

TC/TG/TRG Sponsored Seminars : Title, when presented

1/01 Contaminants Control – Back to Basic (with TC 3.3)

1/01 System Issues Update (with TC 3.3)

2/00 System Issues Update

6/99 Lubricants for HFC/HCFC Blends

6/98 Materials Compatibility (with TC 3.3 and TC 3.4)

1/98 Contemporary Issues in Alternative Refrigerants (with TC 3.3 and TC 3.4)

1/97 Acceptability of Alternative Refrigerants and Lubricants (with TC 3.3 and 3.4)

1/97 Performance Issues of Alternative Refrigerants & Lubricants: Elastohydrodynamic Lubrication & Desiccants (with TC 3.3 and 3.4)

1/97 Non POE Lubricants for HFC Systems (with TC 3.3 and 3.4)

6/97 Compatibility Issues (With TC 3.3)

2/96 Alternative Refrigerants - Performance Issues (with TC 3.3 and 3.4)

2/96 Materials Compatibility with Refrigerants and Lubricants (with TC 3.3 and 3.4)

2/96 Practical Considerations in Use of Refrigerant Mixtures (with TC 3.1)

6/96 Experiences in Retrofits with Esters (with TC 3.3 and 3.4)

6/96 System Chemistry of Refrigeration Lubricants (with TC 3.3 and 3.4)

TC/TG/TRG Sponsored Forums : Title, when presented

6/00 Research Needs For Refrigerants, Lubricants and Secondary.

6/99 Changes Needed to Refrigeration Handbook Chapter 5

1/98 Filter Drier Issues with POE's (with TC 3.3)

6/95 Experiences with Esters in Retrofit and Service

6/95 What Clean-up Procedures are Required after Server System Failure?

JOURNAL PUBLICATIONS : Title, when published

Submitted by: Alice Riemer

ASHRAE TC3.2

Minutes – TC 3.2 Refrigerant System Chemistry

Ken Lilje, Chairman, called the meeting to order at 2:15 p.m. on Monday January 29, 2001. The meeting was held at the Georgia World Congress Center, room 361W located in Atlanta, GA. After the introduction of members and guests, a quorum was confirmed with 12 members present and 2 absent. A motion was then made and seconded to approve the minutes from the June 26, 2000 meeting in Minneapolis, MN. The vote was 11-0-0 (Chairman not voting). The agenda for the present meeting was approved with no changes. The vote was 11-0-0 (Chairman not voting).

Report on TC 3.0 Chair Breakfast Meeting and ASHRAE Liaisons Present

- John Bisset, Program, online program forms available on ASHRAE website. Also check website for various program infos. Printed material from seminars, like slides, may now be submitted to the websites. Cell phones and pagers have to be turned off during seminars and symposia. For written ASHRAE papers, a limit of 12 figures, has to be held. It is also recommended that the chair-person shall gather the evaluation forms and give feedback to the speakers. Commercialism is an ASHRAE Board policy. Motion for specific changes with background must be put through the Technical Council.

Bod Doerr arrived bringing the voting members to 13.

- Tom Reinhart, Journal Insights, still looking for articles from the TC's. Recommends that the TC's must contribute.
- David Geary, Research, available money for research is tight. There is a slight decrease in the budget. The RTAR's and work statements have to be well written, clear, understandable and concise. There is a shift in favor towards applied research. Co-founding and –sponsoring now possible. Research plan and RTAR's are due by August 1st. May 15th is deadline for work statements for summermeeting.
- Bill McCartney, Handbook, discs available exemplifying electronic handbooks. Would like to have input from TC's.

Sub-Committee Reports

Program – Debra L. Pierce

Debra not present, Ken reviewed:

TC 3.2 sponsored two programs in Minneapolis.

Tomorrow at 8 a.m. Sonny Sundaresan will chair "Contaminants Control – Back to Basic, co-sponsored with TC 3.3.

Wednesday at 8 a.m. Seminar "System Issues Update" will be chaired by Debra L. Pierce. Co-sponsored with TC 3.3.

Cincinnati Summer 2001

One seminar and one symposium planned.

- Symposium "System Chemistry" co-sponsor with TC 3.3 status; need chair and speakers.
- Seminar "Issues with R22 Alternatives status; need chair and speakers.

Atlantic City Winter 2002

- Ken asking for input to a possible seminar. No respond.
- Discussion about establishing a forum.

Cary Haramoto arrived bringing the voting members to 14.

Handbook Bob Doerr

Chapter 5 – Refrigeration System Chemistry in the Refrigeration Handbook.

Work in progress. Both Ken Lilje and Raymond Thomas have send material. In a couple of months suggestions will be send out on e-mail. It should be possible to prepare material for voting at the summer meeting in Cincinnati.

Standards Xiaomei Yu

Standard 141P (Proposed)

"Method of Testing Fluorocarbon Refrigerants for Contaminants".

The modification work has begun. Chair of the SPC is Steve Santoro.

Standard 175P (Proposed)

"Metal Pressure Vessel Method to Test Materials Used with Refrigerant Systems".

Joe Karnaz is chairing the SPC. The SPC will meet immediately after this meeting. If material is in no later than Febr. the SPLS will discuss in spring.

Research - Warren Clough

1027 TRP - Chloride, Fluoride and Acidity Measurements in Refrigerants

TC 3.2 based on PMC recommendation accepted the final report. Results shown on Poster Session Tuesday Jan. 30th.

1158 TRP - Effects of System Materials towards the Breakdown of POE Lubricants and HFC Refrigerants

The project awarded to Spauschuss Associates. Literature Search completed. Control testing initiated. Project should be finished at the end of the year.

WS - Mechanism for the Reactions between Polyolester Lubricants and Ferrous Metals.

The workstatement was approved TC 3.2 at the June meeting and by ASHRAE in October. Bidding is on hold due to research tightening of funds. There will be needed volunteers to serve on the PMS once this project moves forward.

Working on the research plan for 2001 - 2002. The plan has to be in no later than Aug. 1st.

Generally we need volunteers for writing RTAR's.

Two RTAR's were approved for Work Statement write-up.

1) Understanding the Mechanism behind copper plating. Bob Doerr will initiate a group for writing this WS.

2) Effect of Organic Acids and other Contaminants on the Corrosion Aluminum Finned Copper Coils.

Discussion on the ideas from the Forum *Research Needs for Refrigerants, Lubricants and Secondary Fluids*.

Membership – Dave Vincent

The roster for voting and corresponding members was read for the upcoming year. Anyone interested in becoming a corresponding member contact Dave Vincent.

Pamela Klipstein will not be attending ASHRAE anymore. Secretary is now Alice Riemer.

Webside – Dave Vincent

Webmaster is Dave Vincent. Webside will be updated a couple of weeks after this meeting. Minutes of the meeting will be both in .doc and .rtf.

Old Business – Ken Lilje

None.

New Business – Ken Lilje.

- ASHRAE Learning Institute. Suggestions for Short Courses are much appreciated.
- ASHRAE Commercialism Policy. Bob Doerr has prepared a written Motion to be voted on at each TC meeting. Presentation of Motion started a good and long discussion.

Bill Murphy, TAC Section Head, is now present.

During the discussion Bob Doerr summarized what other organizations do about this issue:

- American Chemical Society: Has no commercialism policy.

- ASM has no commercialism policy.
- ASTM allows ID of instruments if it is a one-source type.

Bill Murphy: If this motion is approved by several TC's, he will carry this to TAC for us. One of the arguments for revision of the policy will be technology transfer.

The motion was made and seconded.
The vote 13-0-0 (Chairman not voting).

A motion was made to adjourn the meeting and was seconded.

The vote 13-0 - 0. (Chairman not voting)