

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

1791 Tullie Circle, NE, Atlanta, GA 30329
404-636-8400

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: October 31st. 2001

TC/TG/TRG TITLE: Refrigerant System Chemistry

DATE OF MEETING: - June 25, 2001

LOCATION: - Cincinnati OH.

Voting Members Present	Voting Members Absent		
Ken Lilje [02] David J. Vincent [02] Alice Riemer [03], International Member Robert Doerr [03] Horst Thamm [03] International Member Alan Cohen [03] Dietrich Huttenlocher [03] Joe Karnaz [03] Michael Glenn Lacey [04] Glen L. Steinkoenig [04] Sonny Sundaresan [03] David Wilson [03]	Warren Clough [03] Cary Haramoto [03]		
Ex-Officio Members and Additional Attendance			
Scott Gustafson	John Danaher	Raymond Thomas	Joel Kerstein
Dewey Szemenyei	Susan Corell	Rich Cavestri	Ron Shimon
Peter Gibb	Ali Nejad	Fred Polley	Stephen Spletzer
Rob Yost	Rosine Rohatgi	David Bellas	Pat Gilbane
Andy Gbur	Jim Bouril	Joe Nigro	Keiichi Ohmishi
Christoph Meurer	Eldon Ward	Frank Nagy	Gary Dudley

DISTRIBUTION:

All members of the TC/TG/TRG

TAC Chairman: K.William Dean [02]

TAC Section Head: Daniel Int-Hout [05]

LIAISONS:

Program: John Bisset [03]

Journal: Thomas Reinarts [02]

Standards: Arthur D. Hallstrom [02]

Special Publication: Joseph Driscoll [01]

RAC Research Liason: Anthony M. Jacobi [04]

TEGA LIASONS: Marvin Ginsburg [01]

Jon C.Larry [02]

ASHRAE STAFF LIAISONS:

Research: William Seaton

Handbook: Roberto R. Aguilo [2002]

Handbook: Arthur P. Garbarino [2002]

Standards: Claire Ramspeck

Technical Services: Martin Weiland

Additional Distribution:

ASHRAE TC/TG/TRG ACTIVITIES SHEET

TC/TG/TRG No. 3.2

Date: October 31st. 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
Dallas	2/00	Atlantic City	1/02
Minneapolis	6/00	Honolulu	6/02
Atlanta	01/01	Chicago	01/03

TC/TG/TRG SUBCOMMITTEES

Function	Chair
Program	Danny Halel
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 June 25, 2001. The meeting was held at the Cincinnati Convention Center, room 260 located in Cincinnati, OH. After the introduction of members and guests, a quorum was confirmed with 10 members present and 4 absent. A motion was then made and seconded to approve the minutes from the January 29 meeting, Atlanta, GA. The vote was 9-0-0 (Chairman not voting). The agenda for the present meeting was approved with no changes. The vote was 9-0-0 (Chairman not voting).

Report on TC 3.0 Chair Breakfast Meeting and ASHRAE Liaisons Present

? Information or speaks given on seminars can be converted into formal literature. This may be done in different ways. Seminar-topics could result in an article for the Journal or the slides may be posted to the TC website. The latter can be organized through the seminar-chair to the TC-webmaster. Audio-visual requests for speakers must now be in together with the form. Otherwise it cannot be granted. Changes on-site will not be possible.

Sonny Sundaresan arrived, bringing the voting members to 10 (chairman not incl.).

No liaisons present.

Sub-Committee Reports

Program – Debra L. Pierce

Since Debra Pierce probably not will be present at ASHRAE-meetings anymore, Danny Halel is our new program subcommittee chair.

Atlantic City Winter 2002

TC 3.2 will co-sponsor one program in Atlantic City: "Lubricants for Alternative Refrigerants".

"Issues for alternative Refrigerant Systems", chaired by Ken Lilje, will be planned at meeting in Atlantic City.

Honolulu summer 2002

Danny Halel will chair a symposia: "System Chemistry and Contaminants Research".

Handbook Bob Doerr

Chapter 5 – Refrigeration System Chemistry in the Refrigeration Handbook.

Editing work going on with regard to the global warming issue. Changes to be in agreement with the Montreal protocol. Copy of edited chapter about HCFC handed out. (Bill Walters). The edited version includes the phase-out of HCFC.

A motion was made and seconded to approve the addendum. The vote was 10-0-0 (chairman not voting).

Standards Xiaomei Yu

Xiaomei Yu was not present. Rob Yost reviewed:

Standard SPC141P

"Method of Testing Fluorocarbon Refrigerants for Contaminants".

ISO 12810 could be adopted as the 141P standard. ASHRAE editorial changes need to be performed.

According to Danny Halel one may officially ask ASHRAE to adopt this ISO specification.

Standard 175P (Proposed)

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

Joe Karnaz is chair.

Research - Warren Clough

Warren Clough not present, Ken Lilje reviewed.

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

Rosine Rohatgi: Literature review is completed. 14 chemicals and two oils were selected. The tubes were prepared. Some are still running, others are for analysis.

1211 TRP - Mechanism for the Reactions between Polyolester Lubricants and Ferrous Metals.

The workstatement has been out for bid. Three contractors have been reviewed by the working group. Their recommendation to be voted on by TC 3.2 after the official meeting.

Bob Doerr, Ken Lilje and Xiaomei Yu have worked out a work statement with the following title:

“Determine the Mechanism for Copper Plating and Methods for Its Elimination from HVAC Systems”.

The WS was submitted ahead of the meeting. A motion was made and seconded to approve the work statement.

The vote was 10-0-0 (chairman not voting).

The RTAR “Effect of Organic Acids and other Contaminants on the Corrosion of Aluminium finned Copper Coils” is dropped from the research plan. The reason is that ARTI 21 CR has submitted a proposal for bidding on the same research.

Glenn Steinkoenig had prepared a suggestion for a RTAR with the following title: “Method of Testing Compatibility of System Components and Materials with Alternative Refrigerants”.

David Wilson arrived, bringing the voting members to 11 (chairman not incl.).

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.

Webside – Dave Vincent

Guideline through the ASHRAE website: ASHRAE to Technical Committees to TC 3.2.

Bill Murphy is now present.

Old Business – Ken Lilje

The ASHRAE Commercialism Committee have their meeting tomorrow afternoon. The motion written by Bob Doerr, which was approved at the Atlanta meeting by the TC’s, will be discussed.

New Business – Ken Lilje.

Glenn Steinkoenig: Review of chapter no. 6 “Control of Moisture and other Contaminants in Refrigeration Systems” are finished. To be discussed at TC 3.3 meeting.

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

The vote 11-0 - 0. (Chairman not voting)

Minutes to be mailed in .doc .rtf and .pdf