

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

**1791 Tullie Circle, N.E./Atlanta, GA 30329  
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**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 3.4 DATE April 24, 2011

TC/TG/TRG TITLE Lubrication

DATE OF MEETING February 1, 2011 LOCATION Las Vegas, NV

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Joe Nigro	2010			Attendance List Attached
Kirsten Ahrenstorf (IM)	2009			
Scott Gustafson	2010			
Danny Halel	2008			
Curt Slayton	2009			
Sonny Sundaresan	2009			
Raymond Thomas	2007			
David J Vincent	2009			
Rob Yost	2008			
Liwen Wei	2009			

**DISTRIBUTION**

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

TAC Section Head:	<u><b>William Murphy</b></u>
TAC Chair: TAC Vice-Chair:	<u><b>Charles Wilkin</b></u>
All Committee Liaisons As Shown On TC/TG/TRG Rosters:	Ray Cohen – RAC Daniel Dettmers – Handbook Douglas Amramson – Standards John A Clark – Special Pubs Randy Schrecengost – Program Jennifer Leach – CTTC
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."

## **Call to Order - Joe Nigro**

Joe called the Las Vegas meeting of TC 3.4 Lubrication to order at 1:30 pm on February 1, 2011 in the Pavillion 1 Room of the Las Vegas Hilton Hotel. Members and guests introduced themselves. Joe circulated a sign-in sheet and told visitors who wish to join the TC to indicate this on the sign-in sheet.

## **Confirmation of Quorum – Joe Nigro/Ward Wells**

Voting members of the committee include Joe Nigro (Chair), Rob Yost, Liwen Wei, Dave Vincent, Danny Halel, Curt Slayton, Sonny Sundaresan and Raymond Thomas. All voting members were in attendance except Danny Halel who was expected to arrive shortly and did arrive later in the meeting. A quorum of seven out of eight voting members was established.

## **Report of TC Chair’s Breakfast – Joe Nigro**

**Standards Liaison** - Doug Abramson provided an update. TC 3.4 has no open action items. The Standards Liaison Committee will be issuing an e-mail with six questions regarding how to handle standards. If the answer to any of these questions is “Yes”, then we will have some rework to perform. Details will be included in the e-mail communication.

**RAC Update** – Ray Cohen said we have no new RTARs and no new work statements. Money is freeing up within ASHRAE. Three Section 3 work statements already in process are likely to be funded, WS 1584 (TC 3.1), WS 1410 (TC 3.2) and WS1495 (TC 3.3).

**Membership** – The rollover roster must be submitted by midnight February 1st.

**General Comments** - The TCs should make a special effort to welcome new members and visitors.

The Conference Exhibition Committee will be available in the speakers’ lounge to help TCs improve the quality of their abstracts in order to get more submissions approved.

ASHRAE wants more conference papers versus seminar papers. A spirited discussion commenced where 3.4 et al discussed our lack of ability to get seminars approved. No conclusion was reached except that getting involved with the CEC would help our cause.

At the 2012 Annual (Summer) meeting, ASHRAE will eliminate program themes. Papers and seminars may be easier to get accepted.

Keep the TC website updated. Dave Vincent is doing a good job in doing so with TC 3.4’s website updated.

ASHRAE wants the TCs to explore using Google Group as a secure meeting site. This may help reduce the need for meeting rooms at semi-annual meetings. A number of TCs felt this was not practical.

A new “help wanted” section will be added to the ASHRAE technical committee website. Send in requests.

U.S. ASHRAE members will need a passport to enter Canada for the Montreal meeting in June.

## **Liaison Comments**

Joe Nigro asked if Liaisons were present. In the absence of the Standards Liaisons, 3.4 Standards Subcommittee chair Rick Hall discussed status. Sonny Sundaresan is stepping down as chair of Standard 86 Committee “Methods of Testing The Floc Point of Refrigeration Grade Oils” so we need to find a new chair. Chris Seeton is making good progress as chair of Standard 99 Committee “Refrigeration Oil Description

Bill Murphy Section 3 Liason - The Society appreciates our work and our compaines’ support. The Technical Activities Committee is the next level above us and is in place to help us do our job better. They are trying to help us get more presentations into Society programs. Keep submitting seminars and papers. We should have better success in the future. If you have suggestions for changes in the way things are done, forward them to your TC Chair and he will send them on to TAC.

## Approval of Albuquerque TC 3.4 Meeting Minutes – Joe Nigro

Scott Gustafson moved to accept the Albuquerque minutes as written. Sonny Sundaresan seconded and the motion passed unanimously.

### Subcommittee Reports

#### **Program – Ed Hessell**

A topic that is volatile in TC 3.2 and will become so in 3.4 is the difficulty in getting programs accepted for presentation. TC 3.4 submitted a program for Las Vegas which was rejected and we have had this problem in the past. Between yesterday and today we have been looking at how we can improve future acceptance prospects. Should we resubmit the rejected program, Lubricants for Low-GWP Refrigerants, for the summer meeting in Montreal? The deadline is February 14. We had four authors lined up for the Las Vegas program, Chris Seeton, Liz Dixon, Joe Karnaz and Ed Hessell. We should consider limiting presenters to three now because of time constraints in the seminar format. If we resubmit, we should tweak the abstract, adding buzz words. Rob Yost made a motion to update the abstract and resubmit the seminar, Sonny Sundaresan seconded the motion and the TC voted unanimously, 7, 0, 0 CNV (chair not voting). Scott Gustafson will chair the session.

Sonny Sundaresan asked if we should submit the session including PVE lubricants. Joe Nigro said we shouldn't complicate the situation and should instead consider submitting a new program including PVEs. This motion passed, 6, 0, 1 CNV. Sonny abstained because he felt the discussion didn't adequately address his concerns

A number of prospective seminar/conference paper presentation topics mentioned in Albuquerque were suggested as discussed below.

Lubricants with CO<sub>2</sub> is already planned to be covered in Montreal. It was suggested that we make sure we cover all the families of lubricants, including PAGs and PVEs, but we can't really mandate what lubricant a prospective presenter will talk about.

Another possible topic, again carried forward from Albuquerque, is the effect of refrigerant/lubricant solubility on microchannel heat exchangers.

Ed Hessell is investigating why we were bumped from the Albuquerque Technical Program. The emphasis of conference program themes now is on stuff that saves energy. The Society is getting conference papers and they know they can sell papers. They want PDH credit and LEED credits which we can get with seminar sessions but the society can sell papers.

Rob Yost showed interest in participating in a seminar on lubricants for low-GWP refrigerants. Ken Lilje and Ed Hessell would also consider participating in this.

Sonny Sundaresan will help Ed to get a seminar together on lubrication. Ed pointed out that we would need equipment OEMs to participate in this seminar. Sonny moved that we consider a seminar on lubrication aspects with low GWP-refrigerant applications. Raymond Thomas seconded. This session will probably be targeted for the upcoming Chicago meeting. Sonny will chair the session and get three papers. He will make an effort to include supermarket presenters. The motion passed 7-0-0, CNV.

A seminar on low-GWP refrigerants themselves was suggested. Ken Lilje, Chris Seeton and Ed Hessell indicated they might be able to present or get another member of their firm as a speaker.

Another possible seminar session was suggested, on improvement of equipment in terms of EER. It would be for San Antonio and Joe Karnaz volunteered to lead that effort.

It was requested that an item be added to the Montreal TC 3.4 agenda under Program as to whether we should push for seminars or conference papers in future conferences.

## **Handbook – Liwen Wei**

Our chapter was published last year in the 2010 edition of the handbook. We have a year to wait before the revision process begins for the next edition. The next chapter revision has to be submitted in late 2013. Volunteers for the next chapter revision subcommittee include Sonny Sundaresan, Rosine Rohatgi and Chris Seeton. LiWen would like to be replaced as chair.

## **Standards – Rob Yost**

Standard 86 – Methods of Testing the Floc Point of Refrigeration Grade Oils. We have to revise this standard since the references are out of date. Sonny Sundaresean can't chair the subcommittee this time so we will need a new chair. Rob Yost moved that TC 3.4 should revise the standard, Danny Halel seconded and the motion carried 8, 0, 0 CNV.

Standard 99 “Refrigeration Oil Description” Chris Seeton has volunteered to be the chair. Dave Vincent, Ken Lilje and Ed Hessell agreed to serve.

Standard 172 “Method of Test for Insoluble Materials in Synthetic Lubricants and HFC Refrigerant Systems”. Liwen Wei has revised the work statement. The plan is to start round robin tests as soon as possible with the intent of completing them in two to three months. We will vote in Montreal on the proposal.

We will have this method ready for public voting in the 2012 annual meeting. Shelley Rosen suggested we can proceed without a round robin. Jay Field pointed out that we do already have the procedure as Shelley indicates but that the round robin is just a good way to show an example of what happens.

## **Research – Chris Seeton**

The Research subcommittee met on Sunday evening. They conditionally accepted a work statement dealing with HFO refrigerants and lubricants. Hopefully they can move that to an accepted RTAR in time for the Montreal meeting.

Another proposed project is the effects of mixed lubricants on refrigerant performance. This would be in reference to R-22 retrofits, where some of the old lubricant is removed and replaced by new lubricant. This will be drafted by Rob Yost, Joe Karnaz and Danny Halel.

## **Webmaster – Dave Vincent**

Dave has transferred 75% of the website materials to the ASHRAE website and expects to have the rest moved by the Montreal meeting.

## **Membership – Joe Nigro**

The new roster is complete.

## **Old business – Joe Nigro**

None was brought before the committee.

### **New business –Joe Nigro**

Chris Seeton brought the situation in TC 10.10 to TC 3.4's attention. TC 10.10 is having difficulty getting any work done and everything they are working on overlaps with the work that TC 3.4 is responsible for. They would like to combine with TC 3.4.

Danny Halel moved that TC 3.4 and TC 10.10 be combined under the title "Lubrication and Oil System Management", recommending the chair appoint an ad-hoc committee to rewrite the title, Purpose and Scope of TC 3.4. Sonny Sundaresan seconded. The motion passed unanimously with the chair not voting but in support. Volunteers for the ad hoc committee were Rob Yost, Joe Karnaz, Chris Seeton and Joe Nigro.

We will have to take over their standards and research programs. Sonny Sundaresan will talk to Dr Raymond Cohen outside the TC 3.4 meeting about how to integrate research work pending and in progress in the two TCs.

### **Adjourn – Joe Nigro**

With no further business before the TC, Joe Nigro adjourned the meeting at 3:20 pm.

## Attachments

### 1) Attendance List (page one of two)

TC 8.1 Attendance List – Las Vegas

Name	Company	Status
Joe Nigro	CPI Engineering	Chair/VM
Scott Gustafson	Shrieve	VChair/VM
Danny Halel	Ingersoll Rand	VM
Ed Hessel	Chemtura	Program/CM
Chris Seeton	Honeywell	Research/CM
Dave Vincent	BVA Oils	Webmaster/VM
Liwen Wei	Novitas	Handbook/VM
Ward Wells	DuPont	Secretary/CM
Rob Yost	National Refrigerants	Standards/VM
William Murphy	University of Kentucky	Section Head
Kirsten Ahrenstorf	SECOP	IM
Curt Slayton	Consulting Services International	VM
Sonny Sundaresan	Sundaresan Consulting Services	VM
Raymond Thomas	Honeywell	VM
Corey Anderson	CPI Engineering	Guest
Dale Carr	Chemtura	CM
Warren Clough	Carrier UTC	CM
Alan Cohen	UOP	CM
Jay Field	Trane	CM
Clint Finstad	Friedrich Air-conditioning	CM
Joe Karnaz	CPI Engineering	CM
Umar Khokhar	National Refrigerants	CM
Ken Lilje	CPI Engineering	CM
Julie Majurin	Trane	CM
Rosine Rohatgi	Spauschus Associates	CM
Marc Scancarello	Emerson Climate Technologies	CM
Eric Schweim	Idemitsu Lubricants America	CM
John Senediak	Intertek	CM
Enrique Villavicencio	Acemira	CM
Hewett Gaudin	Mexichem	Guest
Patrick Gilbane	Sonneborn	Guest
Peter Huang	Lubrizol	Guest
Tony Korba	Parker	Guest
Tom Kosicki	Idemitsu Lubricants America	Guest
Steve Kujak	Trane	Guest

